FIGURE 1-A

>19:60156701-60251100

1	ctabaaatac	2222221+2	actacacaca	gtggtgaatg	catataataa	cacctacttc
					_	
61				cgggaggcag		
121	tgcagcactg	cactccagcc	agggtgacaa	agtgagactc	cgtctcaaaa	aaaaaaaaa
181	aaaaWataca	aaaagtagct	gagcgtggtg	gtgggtgccc	ataatcccag	ctagtcRgga
241	ggctgaggca	ggagaactgt	ttgaacctgg	gaggcagagg	ttgcagtgag	ctgagatcgt
301	actactgtac	tccagcctgg	gctgcagagt	gaaactatct	caaaaataag	taaataaaag
361				cagatgggag		
421				caatcctccc		
481				gctaacttat		
541				cttgaagaag		
601				tgagacagga		
661			_	ccacgtggga		
721	agatgggctt	caacctgcag	gctctcctgg	agcagctcag	ccaggatgag	ttgagcaagt
781	tcaagtatct	gatcacgacc	ttctccctgg	cacacgagct	ccagaagatc	ccccacaagg
841	aggtagacaa	ggctgatggg	aagcaactgg	tagaaatcct	caccacccat	tgtgacagct
901	actgggtgga	gatggcgagc	ctccaggtct	ttgaaaagat	gcaccgaatg	gatctgtctg
961				ggaaatcggt		
1021				ttcagaaggc		
1081			-	ggttggacca		
1141				gcatctctac		
1201			-	ctactccggg		
1261				gccgagatca		
1321				aaaaaagaaa		
1381				tcttcataaa		
1441	cttattttct	acctacttct	tttttttt	ttttttgtcc	ttttatttt	ttattttta
1501	ttttattatt	attattttt	ttattatact	ttaagtttta	gggtacatgt	gcacattgtg
1561	caggttagtt	acatatgtat	acatgtgcca	tgctggtgcg	ctgcacccac	taactcgtca
1621	tctagcatta	ggtatatctc	ccaatgctat	ccctccccc	tcccccacc	ccaccacagt
1681	ccccagagtg	tgatgttccc	cttcctgtgt	ccatgtgatc	tcattgttca	attcccacct
1741	atgagtgaga	atatgcggtg	tttggttttt	tgttcttgtg	ataqtttact	gagaatgatg
1801	gtttccaatt	tcatccatqt	ccctacaaaq	gacatgaact	catcattttt	tatggctgca
1861	_	-	-	ttcttaatcc		
1921	-			aataatgctg	_	
1981		_		tttgggtata		
2041			-	ctgaggaatc	_	
2101		-	_	tgtgaaagtg	_	
2161				atgatcgcca		
2221				ctgatggcca		
2281				tttgagaagt		
2341						
			-	ttgtaaatta		_
2401				atctgtggat		
2461		-		caatacaata	-	
2521				tctgtcaccc		
2581				gggttcaagc		
2641				ccatgcctgg		
2701	-			ccatgttagc		
2761	gacctcatga	tctgcccgcc	teggeeteee	aaagtgttgg	gattacaggc	gtgagccacc
2821	gcacccagcc	agcaagtgca	tttagaacta	ctctactttc	taccccataa	ctttttttt
2881	tgtttgtttg	agacaagtct	cactctgYca	cccaggatgg	agtgcagcag	cacaatctca
2941	gcttattgca	actcccgccc	cctgggttca	agtgtttctc	ctgcatcagc	ctcttgaata
3001	gctaggatta	tacaggcacc	tgccactgtg	cctggctaaa	ttttgtattt	taatagagat
3061				tgaactcctg		
3121				tgagccgcca		
3181				tggagtacaa		
3241		-		ctaccactat		-
3301				agatagggtt		
3361				tcctgccttg		
3421				gcagctttat		
3481					-	
				taaaaaatgt		
3541				caagccttaa		
3601						gtggatcact
3661	cgaggccagg	ayıııgagac	cayteaggee	aatgtggtga	adcoctgtct	ctactaaaaa

FIGURE 1-B

```
3721
       tataaaaaaa tcagccgggc gtggtggcac actcctgtag tcccagctac ttgggaggct
3781
       gaggcaggag gattgcttga accagagagt cagaggttgc agtgagccaa gatcgtgcca
3841
       ctgcgctcca gcctgggtga cagcaagact ccatctcaaR aaaaaaaaac aaacaaacat
3901
       ggtattaatt acacaatgga atactcctca accttaagga actcctatct ttttatttaa
3961
       aaattgccag ttttatttca gctagagatc actttttagc ataatgtttc ctgtctttaa
4021
       caatqqqtqa qqqttttttt ttttttttt ttqqtttqqt ttqqattttq qttttqcttt
4081
       tgagtcgaag tttcactctt gtctcccagg ctagagtgca atggcgcgat ctcggctcac
4141
       tgtgacctcc tcctcccagg tttaagtgat tctcctgcct cagcctccag agtagctggg
4201
       attacaggcg cctaccacca tgcccqctaa tttttqtatt ttaqtaqaga cagggtttta
4261
       ccatgttgac cagactggtc tcgaactccc gacctcaggt gatctgccca cctcagcctc
4321
       ccagagtgct gggattacag gtgtgagcaa ccatgcccgg ccaagggttt ttaactttag
4381
       ctgacctccg gaggttacaa gtttgaaaac ggcaggagga aacccagaga gttgtaaact
4441
       tacgaaggtc tgggctctga aaaagataca aattttcttt ccatgccaat agcRctcaca
4501
       cagacatggt gaatgttcct gaaacccgcc ggactttctg taagaagtgt ggcaagcacc
4561
       acccccacaa agtgacacaa ggcaaggatt cttggtatgc ccaggggaag tagtgttatg
4621
       acaggaagca gagtggctat ggtgggcaga ctaagccgat tttccggaaa aaggctaaaa
4681
       ctacaaagaa gattgtgcta aggcttgagt gccttgagcc caactgcaga tctaagaatg
4741
       ctggctatta aaagatacaa gcagccaagc gcggtggctc acgcctgtaa tcccaacact
4801
       ttgggaggcc gaggtgggcg gatcacaagg tcaggagtct gagaccagcc tggccaaaat
4861
       ggtgaaaccc catctctact aaaaatacaa aacttagctg ggcatggtgg tgtatgccta
4921
       tagtcccagc tactcaggaa gctgaggcag gagaatcgct tgaacctggg aggcagaggt
       tgcagtgagc caagattgtg ccactccagc ctgggcaaca gagtgacact ctgtctcaaa
4981
5041
       aaaaaaagat gcaagcattt tgaactggaa ggagataaga gaaaggaaca agtgatccag
5101
       ttctaaRtgt catctttct tttatgaagg caataaaatc ttgagcttat ggtaaaatgc
5161
       aaaattttcc ccccttctcc tttttcagaa gcagctttga aatcctttaa taaaaggaaR
5221
       cctctatcat taggtaagtt acctcattta taacttttat tcttcatgtg agatctgggg
5281
       actcgggcct ttgttttaag gagaatgtgc tgagcactaa gaatgcaaag aaatgccgga
5341
       cttagcatcc ctgctcccag ggcggagctg gtctcgcagg tgcgtagcag taagacctgg
5401
       gaagctgaaa cacgatcgcg tttgttggaa atctataaat acatacaaag cggggaaggg
5461
       taagcttggc ctttgaatct ggataaggta gagacttttc ttttttgaga tggaggcttg
5521
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5581
       tgggttcaag cagttctcct gcctcagcct ctagaatagc tgggattaca ggtacctgcc
5641
       accaggcccg gctaattttt tgtggtgttt gtagagatgg ggtttcacca tgatggccag
5701
       gctggtcttg aactcctgac ctcaagtgat ctgcccacct cagcgtccca aaatgctggg
5761
       attatgggca tgagccacca ccacaccgg ttttgttttt ttttttttt tttttttt
5821
       tttttttt ttgaaacagg gcttcactct gtcacttagg ctggagtggt gcaatcatgg
5881
       ttcactgcag ccttgacctc ccaagctctg gtgatcctcc tgcctcagcc tcctgagtag
5941
       ctgggaccac aggcacttgc caccatgcct ggctaatttt tttcactttt tgtagagaca
6001
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6061
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       cttatatcct gaagattatt attattttt tttttttga gatagagtct ctctctgttg
6121
6181
       cccaggctgg agtgcagtgg cgtgatctcg gctcactgca agctccgcct cccgggttca
6241
       tgccattctc ctgcctcagc ctcccgagta gctgggacta caggcgccca ccaccacgcc
6301
       tggctaattt ttttgtgttt ttagtagaga cggggtttca ccgtgttagc caggatggtc
6361
       togatotoct gacottgtga tocgoocgoo toggootoco aaagtgotgg gattacaggo
6421
       gtgagccacc gcgcccggcc cctgaagatt gtgttttgag atggggtctt gctgtgttgc
6481
       tccggcttga ttgcagtggc acagtcatag ctcattgcag cctcaacctt ccaggctcca
6541
       gagatectet taccteagee teetgagtag etgggaetae aggtgtgeae tgeeacacet
6601
       gactaatatt tgtatttttg gtagggacag tttcactatg ttgccagata tggtgtcaaa
6661
       ctcctggtct caagtgatcc tcccaccttg gcctcccaaa gtgctgggat tacagacatg
6721
       attcaccaca cctggccatg aagacttttt ttttttggac aaagtctcac tctgttgccc
6781
       aggatggaat gcagtggcat gatctcagct cactgcaacc tctgacctcc gcctcccggt
6841
       tcaagtgatt ctcttgcctc agcctcccga gtagctggga ttataggtgt ctgccaccaa
       gcccagctaa tttttgtaat tttagtagag atggggtttc accatgttgg ccaggctggt
6901
6961
       cttgaactcc tgacctcgtg atccacqtgc ctcagcctcc caaagtgttg ggattacagg
7021
       tgtgagtcac tgcgcctggt ctcatgaaga ccttttttga gacagagtct tgctctgtca
7081
       cccaggctgg agtgcagtgg tacaatctca ctgcagcctc cgcctcccag gttcaagtga
7141
       ttctcctgcc ttagcctccc aagtagctgg gattacaggc gcctaccacc acgtctggct
7201
       aatttttgta tttttagtag agacagggtt tcaccatgtt ggccaggctg gtctcaaact
7261
       gctgacctca aatgaactgt ctgcctcagc ctcacaaagt actgggatta caggcatgag
7321
       ccacctcacc tggtggtgaa gactctaaag gctcttctca gatcagcctt tgtcctgaat
7381
       ttcacatgcc cgtgtccagt tccctcccca gcatcttttc aggagttcca tggactcacc
7441
       tcttcattat ccagggttaa gctgcagata ttgttattag gattccacct tgttctctc
7501
       cttttttt ttttttga tacggagtct cgcttgctct tttgccaggc tgaagtgcag
```

FIGURE 1-C

```
7561
       tggagcgatc ttggctcact gcaatctccg cctcctgggt tcaagcaatt cccttgcctc
7621
       agcctcqcaa gtagctggga cttacaggta acacaccacc atgcccgqct aattttttqt
7681
       tttagtagag acggggcttc accatgttgg ccgggatggt ctcgatctcc tqacctcatg
7741
       atcogcotgo cttggcotco caaagtgttg ggttacaggo atgagocaco atgccoggot
7801
       gattccacct tgttcttaca ttctttccca gttcatttta aatttatcta cctcatcaga
7861
       aactaggggg ttaggcctgg caggcagatc acctgaggtt gggagttcga gaccagcctg
7921
       accaacgtag agaaaccctg tctgtactaa aaatacaaaa ttagccaggt atggtggcac
7981
       attcctgtaa tcccagctac tccggaggcc gaggcaggag aatcacttga acccaggagg
8041
       cqqaqqttqc aqtqaqccqa catcacacca ttqcattcca qcctqqqcaa caaqaqcaaa
8101
       actacatctc aaaaaaaaag aaaaactagg cagttaatcc tcaaagcctt tccagtggcc
8161
       8221
       accatgtgtt ctgaactact taggaattct caccagaaag gcacataaac ctgggatcat
8281
       ggcctaatgt actttcactt ttacatccag taccttatca acgtcctttt tagtacctaa
8341
       tctaggcttc actactgaga ctcaggggtc caacttgagc catcttggag tcccactgcc
8401
       agcacagcaa caggcctgta atgccgccct ttttctccag ggataacacg gaaagaacga
8461
       ccacctctag acgtggacga aatgctggag cgcttcaaaa cagaagcaca aggtgggtgt
8521
       caggacetee aatgttggag teagetgagg aageeeeeg ttettgetge tateteetgt
8581
       teetttgaag aaccecatet etetecaate tttteeteea etattettaa tgtgeecaet
8641
       gtctcctgga gaatgccaac ctcccttccR taagaataga gggaagaacg aacgttgcag
8701
       {\tt agaaattagaa\ ctcagtttg\_t\ agaaagttag\ gagcacagcg\ cagaagttt\ ttgtttttgt}
8761
       ttttgttttg agacagtttc tctgttggcc aggttggaat gcaatggcgc gatctcggct
8821
       cactgtaacc tccacctccc aggttcaagc gattctcctg attctcctga ctcagcctcc
8881
       tgagtagctg ggattatagg cacctgccac cacacccagc taatttttt ttttttt
8941
       gagacgaagt cttgttcttg tcacccaggc tggagtatag tggcaccatc cctgttcact
9001
       gcaacctccg cctcccagat tcaagtgatt gtcctgtctc agcctcctga gtagctggga
9061
       ctacaggtgc atgccaccac gcccagctaa tttttttttg tacttttagt agagacaggt
       ttcaccatct cattcagggt ggtctcaaac tcctgacctc aagagatctg ctccacccac
9121
9181
       ccccaagtct cccqaagtgc tgggattaca ggcgagagcc accgtacccg gccttcttta
9241
       aattatttaa aagttgacag gtggccaggt gtggtggctc tcacctataa tctcccagca
9301
       ctttgggagg ctgaggcggg tggatcaaga gatcgagacc atcctggcca acatggtgaa
9361
       acceaactet actaaaaaca caaaaattag ccgggtgtgg tggcacccgc ctgtagtccc
9421
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9481
       agccaagatt gtgccactgc actccagcct ggcaacagtg cgagactcca tcttaaaaaa
9541
       aaaaaaaaa aattgacagg cataaatgta tttatggtac attgctcaga caactttaat
9601
       ataaacaact tacagagaaa attgagtctt ttgggtaggt gacttgcctg agctgacttt
9661
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9721
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9781
       ttcctgccac agcctcccca ggtgctggga ctataggtgc ccaccactat gcctggctaa
9841
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9901
       tgacctcaag tgatccacct acctcggtct cctaaagtgc tgggattaca gctgtgaacc
9961
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10021
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10081
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10141
       gcctcagcct cccgagtagc tgggatcata ggcgcccacc accacatctg gctaattttt
10201
       gcatttgtta gttttatttt tagtagacag ggtttcacca tgttgggcag gctggtcttg
10261
       aactcctgac ctcaggtgat ccacccactt cggcctccca aagtgctggg attacaggca
10321
       tgagccaccg tacctagccc acattgactt ttgatacagc aagtatttct tgctatggct
10381
       ctgtataata gaggtgagta acttggttga aggaattgtt tgccctgttc atctctctag
10441
       acacggccaa tgtcattcct ggcacacaat ctttttttt cttgagatgg agtctcactc
10501
       tgttgcccag actggagtgc agtggtgcaa tcttggccca ctgcaacctc tgctacccag
       gttcaagcga ttctcctgcc tcagcctccc aaatagctgg gagtacaggt gtgtgccacc
10561
10621
       acgcccagct aattittigt attitagtag agacagggtt tcaccgtgtt agtcaggatg
10681
       gtctggatct cctaacctcg tgatccgtcc gcctcagcct cccaaagtgc tgggatgaca
10741
       ggcgtgagcc actgtgccca gcctagcaca caatcttgac aaagaatttc ggtgcgactt
10801
       ggggtactgt ggtgcctgct ctatcatcat gcttcagcag gaaatgtggg tgaatagtgc
10861
       10921
       tctgtcaccc aagctggagt gcagtggcgc aatctcggct cactgcaagc tccatctccc
10981
       gggttcacgc cattctgcct cagcctcccc agtagctggg actacaggcg cccgccacac
11041
       gcccggctaa ttttttgtat ttgtagtaga gacagggttt caccgtgtta gccaggatgg
11101
       tctcqatctc ctgaccttat gatccacccq ccttgqcctc ccaaaqtqct gqqattacaq
11161
       gcgtgagcca ccgcgcccag ccgcgggtaa agaaatttat gaagacaatc gtaggtaaag
11221
       gaaggcagat ttattggaga aagtaggaaa agacattggc agagagaccc cagcgggcag
11281
       gttgtcatga gtagctcact gccaggagac caaagcttcc tgcagatttt atagaatagg
11341
       gcttgggctg attgataatg tcaacagggg gtttaacttg cggtcttctt tcagcagaag
```

FIGURE 1-D

11401	tgtttgataa	actgaggcgt	ttcatggcaa	acagggagtt	tgtgagctct	gtgtgtgatc
11461	tggccaggaa	ggccaaacat	cttgggccgt	atctcctgga	ccataaaagc	agacctggcc
11521	cagtgcagtg	gttcatgcct	gcaatcccag	cactttggga	ggctgaggtg	ggtggatcat
11581	ctgaggtcag	cagttttaga	ctggcctggc	caacatggcg	aaaccccatc	tctactaaaa
11641	atacaaaaat	tagcctagac	gcagtggcac	atgcctgtaa	ttccagttac	ttgggaagct
11701					agtgagctga	
11761					cagacctata	
11821	-			_	atttatttat	
11881					cgatctctta	
11941					ccaagtagct	
12001					agagatgggg	
12061					cccacctcag	
12121					aacacatttg	
12181					cagcctgcct	
12241					tctcacatga	
12301					ggtaaagaag	
12361					tgggatcaga	
12421					catttattta	
12481					gccgtggcgt	
12541					cctcagcctc	
12601					atttttagta	
12661					aggtgatctg	
12721					ccggccaaca	
12781	_				ctctcccttc	
12841					agacgaagtt	
12901					tggctgagag	
12961					tctcatacac	
13021	_	_				
13021					aactaatgct tcagctgcag	
13141						
13201					actggcctga	
13261					tcgtgattga	
13321					gcggggactg	
13321					tgatgttacc	
13441					ggatcctggc	
13501					gggcctattt	
					tgaggagcaa	
13561 13621					gcacgactct	
13621				-	gcacggggct	
13741					gcgcgctgcg	
13801					ttcaccgaga	
13861					acggagacat	
13921					gcttccagca	_
13921					gggacggcca	
14041					tcaggaaccc	
14101					gagccaagga	
14161					tgctgcgatg	
14221					tcctcggctg tcaaagaaat	
14281 14341					agcactgtcg	
14401					atgtcactgc	
14461					gtcgttccat	
14521					actgtggctt	
					atggagtctt	
14581					cctccgcctc	
14641		-			aggcgcctgc	_
14701					tgttggccag	
14761					caaagtggga	
14821					ggtcttgctg	
14881					acttctgggt	
14941					tcatgtccag	
15001					tggaaagaca	
15061					ttacaggcat	
15121 15181					gtatattccc	
	r r r r r r r r r r r r r r r r	agacggagtt	ıcactctttt	cccaggtcg	gagtgaagtg	yctcgatctc

FIGURE 1-E

```
15241
       ggctcactgc aacctccgcc ccaccaggtt caatgattct cctgcctcag cctcatgagt
15301
       agctgggatt acagccaccc acgaccatgc ccagctaatt tttgtacttt tagtagagac
15361
       ggggtttcac catgttggcc aggcaggtct cgaactcccg acctcaggtg atccacccgc
       ctcagcctca caaagtgcta ggattatagg cgtgagtcac cgtgcccggt ctatattctc
15421
15481
       tatcttttat caatgatgtg cttagcattt taacttattt ttaccctcta ttggattttt
15541
       gtctaagaag aataggttct ttctcctgtg atgcttcttg ggtgttgagt tgtctgatgg
15601
       tggtgctaat aagtgattac atggtccagc tttcaattgt actcatttgt caggggtata
15661
       tgcccagaga aaccctaaat acttcagccg tgatggacac acatttggtg taaccctttc
15721
       ttctcttccc tatagatccc aggatgatca gcacatgctt cctttctgga cggacctttg
       ttccatattt ggatcaaata aggatctgat gggtctagca atcaatgata gctttctcag
15781
15841
       tgcctcccta gtaaggatcc tgtgtgaaca aatagcctct gacacctgtc atctccagag
15901
       agtggtgtaa gtagaaacta attcatgaac tcaaatcctt agggtatgaa aatggtacaa
       tgttaacatc ggagcaatat tcagattcct gtactagact cttaagtgct cgagacacag
15961
16021
       ggaattgaga gagtcctgtc cttaaattta ttttgtggga taatcgtata aagtaatttc
16081
       taggggctgg gcatggtggt tcacacttgt aattccaaca cttcgggagg ccgaggcaga
16141
       cagatcactt gaggtcagga gttcgagacc agcctggcca acgtgacaaa accctgcctc
16201
       tactaaaaat acaaaaatta tccaggcqtq qtggcaggca cctgtaatat cagctacttg
16261
       ggaggctgag gcaggagaat tacttgaacc caggaggcgg aggttgcagt gaaccaagat
16321
       cctgccactg gactccagtc tgagtgacag agcgaRactg cgtctcaaaa aaaaaaaaaa
16381
       aaaaaaagaa aaagaaaaaa agggccgggc acaatggctc acgcctgtag tcccagcact
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FIGURE 1-F

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FIGURE 1-G

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FIGURE 1-H

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       gcctcagttc ctgagtaggt aggtttataa gcatgaacca ttgcacccag ccacggctgc
28621
       cgtctacctg ctcatgatag ccatttgtca ctgggctgtg ttttgtttgt tgcattttgt
28681
       28741
       agtoteacte tgttgcccag gctggggtgc agtggttgct aactgcaace tccacctccc
28801
       aggttccagc tattctcatg cttcagcctc ccaagtagct gggattacag gcatgcacca
28861
       ccacacctag gtaatttttg tatttttagt agagacaggg ttttgccatg ttggccaggg
28921
       tggtctcaaa ctcctgacct ccgtgatttg cccacctcag catcccaaag tgctgggatt
28981
       acaggcatga gccaccgcac ccggcctgag ttgtattttg ataccatggc atcaaagaac
29041
       caagaagccc cttcctagga atgtgggaac ttcagaaatt ctcacaagca atatactcta
29101
       ctgctggctt aaaataatct ttatgtagaa gaaacataga ttacttgttt atttaacatg
29161
       aaactcagcc taagatactt tgtaagtcaa aagacatatg gacactaagg gtttttttaa
29221
       gctttaagtt tgtttgtttg tttatttatt atttattttg gagacagttt tactcttttt
29281
       29341
       tattgatcat tcttgggtgt ttctcacaga gggggatttg gcagggtcat aggacaatag
29401
       tggagggaag gtcagcagat aaacaagtga acaaaggtct ctggttttcc taggcagagg
29461
       accetgegge etteegeage gtttgtgtee etgggtaett gagattaggg agtggtgatg
29521
       actettaacg agegtgetge etteaggate tgtttaacaa ageatatett geacegeeet
29581
       taatccgttt aactctgagt ggacacagca catgtttcag agagcacggg gttgggggta
29641
       aggtcacaga tcaacaggat cccaaggcag aagaattttt cttagtacag aacaaaatgg
       ggggctgacc ccccacctc cctcccggac agggcggctg gccggttaga ggggctcctc
29701
29761
       acttcccatt aggggcggcc gggcagaggc gccctcacc tcccggacaq ggcqgctgqc
29821
       tgggcggggg gctgacccc ccacctccc gcccggccag agttttactc ttgttgtcca
29881
       gcctggagcg caatggcgct atctcggctt actgcaacct ccgcctcccg ggttcaagag
29941
       gttctcctcc ctcagcctcc caagtagctg ggactacagg catgtgccac cacacctggc
30001
       taatcttgta tttttaatag agacagggtt tctccatatt ggtcaggctg gtctcgaact
30061
       cctgacttca ggtgacccgc ctgcctcagc ctcccaaagt gctaaqatta caggcgtqag
30121
       ccaccatgcc tggcctgcat ctcctctgtt taactggtac tccggggtcc actgagtaga
30181
       agttgccaaa gtgggtgata gagcgggtaa gcaggtatta gagctatagc ccagctgtac
30241
       tcaqcaattc cattttctgt gtatgataat caacaagcat ctcaaactgc acaatgqcta
30301
       tataccatta caaggttaac ctgatgttat gtttttctct atcagatcaa catggttgag
30361
       aataagagga atgaaaaaaa ggattaaaaa gagaaatgaa agtctttaat attacatttt
       attatttact tcatttattt tttagacaaa aatctcactc tattgctcag gctggagtgc
30421
30481
       aggggcccga tctcagctca ctgtaacctc cgcctcccag gttcaagtga ttctcctgtg
30541
       tcagcttcct gagtagctgg gattataggg atgcaccatc acacccaact aacttttata
```

FIGURE 1-I

```
30601
       tttttagtag agatggactt tcaccatctt gcctaggctg gtctcaaact cctgacctca
30661
       agtgatctgc ccacctcact ctcccaaagt gctggcatta caggcatgac ccaccacatc
30721
       tggcctcatt ttatatttaa aaataaaaaa taagcaaatc aagccaggta cagtttaggc
30781
       aacatggtaa aaccccaact ctactaaaaa tacaaaaatt agctgagcat ggtggcaggt
30841
       gcctgtagtc ccagctactc gggaggcaga ggataggatg gcttgaaccc aagaggcaca
30901
       ggttgcagtg agctgagatg gtaccactgc actccagctt gggcaacaga gagactgtct
30961
       31021 \
       agtggcacga tctcggctca ctgcaagctc cgcctcccgg gttcacacca ttctcctgcc
31081
       tcagcctcct gagtagctgg gactacaggc gtccgccacc acqcccggct aattttttgt
31141
       atttttttag tagagacagg gtttcaccgt gttagccagg atggtcttga tctgctgacc
31201
       tcgtgatcca cccgcctcag cctcctaaag tgctgggaat tacaggcRtg agccatcacg
31261
       ccccacctga gactgtcttt taaaaaaaaaa aaaaaaaaat caatgtggaa cactcctttg
31321
       ccacctagaa taatcaggaa aggtgaccca tgccctgtgc ctccttaaca gactttcagg
31381
       tacttgggaa tttgaaacaa atctccttga tgcacaaagt aaccttttct tcccccattg
31441
       taccccaggt tgaaaatMga tgactttaat gatgaactca ataagctgct ggaagaaata
31501
       gaagaaaaaa acccacaact gattattgat actgagaaac atcatccctg ggMagaaagg
31561
       ccttcttctc atgacttcat gatctgaatc cccccgagtc attcattctc catgaagtca
31621
       togattttcc aggtgtKggt gaactgcctg tgactcctct cctccccSgc ccctacccct
31681
       cagggataat gagttcattg ctgggctaga tgttttagcc atgattctgc ctctgtttta
31741
       tacctgcaca cRtccttatc tttgttacat atgaaatatc tgtatcacgg gtatattgag
31801
       agaaataaag gtgagagcat tcacaaatga agctgttact taataatggg ctttgacaag
31861
       ttagagaaaa gatatcttac tgggtagaac ctggggggtg ggggaagtga cagtgtttaa
31921
       31981
       tcttttcttt ttttttttt tttttttag actgagtttc actctgttgc ccacgctgga
32041
       gtacactggc acgatctcag cttactacaa cctggcaggt tcaagcgatt ctcctgtctc
32101
       agcctcctga gtagctggga ttacaagcat cccccaccac acccggctaa atttttttgt
32161
       attittaata gagatgaggt ticaccatgt tggccagtct ggtctcaaac tcctgacctc
32221
       aagtgatcca cccacctcag cctcccagag tgctgggatt acaggcatga gccactgtac
32281
       ccggcttttt ttttttctt tttcttttc ctcaagcatg agtgttgctc tgttgcccag
       gctggaatac agcagcatga tgatagctca ctgcagcctc aagctcccag gttcaagcga
32341
32401
       tectecagee teageeteet cagtagetgg gactacaggt geacaceace aaaceaggee
       aatttttgtg ggattttttt tgaagacagg gtctcactat gttgcccagg ctgatctcaa
32461
       acteccagge geaagtaata tteetgeete ageeteecaa agtgetagga ttacaggtgt
32521
32581
       gaaccactgt gcctagcctg tcttgttact tgttgacctg cgtggatcac tgcctgctga
32641
       gtattacttg ccagaggatt tctcctacca atctacaata ttttaggtgc ttcggtgtag
32701
       ctcatatatg accatgtcat tgctctgatt ttgcttttta aaaattctaa cttaaaatag
32761
       aatctcggcc aggcacggtg gctcacacct gtaatcccag cacttcggga ggctgaggtg
       ggtggatcac gaagtcagga gttggagacc aacctggcca acgtggtgaa accccgtctc
32821
32881
       tactaaaaat ataaaaaatt agccaggcat ggtggcacat gcctgtaatc ccagctactt
32941
       gggaggctga ggcaggagaa ttgcttaaac ccaggaggtg gatgttgcac tgtgctgaag
33001
       actgcactac tgcattccag cttgggcaac agagtgactc cttctccaaa aaaaaacaaa
       atctcatggt atgcatagtt tttcactata gagtctccat tatttccttg tgatacagaa
33061
33121
       ttccaaattc aacaaagcag cagtgcaagc tctacgctgt aaaaccacaa acaaaacgaa
33181
       ctgtactata aagacaacac tagttggcaa agttgcttct catggggaga ctttgttgct
33241
       gtctgtgttt actggatgag caaacaaatg gacggtaagg gggaaaaaga acagtacaaa
33301
       tttttattaa acactaatca tgttttttt tgtttgtttt gagacagttt cttcttgttg
33361
       cccaggctgg agtgcaatgg cacgattttg gctcactgca acctccgcct ccccgggttc
33421
       aagcgattct cttgcctcga cctactgagt agctgggatt ataggcatgt gccaccaagc
33481
       ctggctaatt ttgaattttt agcagagacg gggtttttcc atgttggtca ggctggtctc
33541
       gaactcccga cctcaggtga tccaccagcc ttggtctccc aaagtgctgg gattacaggt
       33601
33661
       tggtggcaga atcttgctct ttcacccagg ctggaatgca atggcacgat ctcgggtcac
33721
       tgcagcctcc acctcccag tttaagcagt tctcccatct cagcctccca tgtagctggg
33781
       accacaggtg tgcaccactg cacccaggta atttttgcat ttttggtaga gatagggttt
33841
       tgccacgttg tccagactgg tcttgaactc ctgagctcag gtgatctgcc caccttggcc
33901
       tccccaaatg ctgggattat aggcatgagc caccacacct ggtcaaaagt agttttaata
33961
       tttaaattta aaactaaaaa agttaatctc tcttcctact ttcatttctt catcaggggc
34021
       tattggttta ttcccaccga ctagatccaa gttctctgat actaccttta aaccactcca
34081
       tcactttcca gttccactgc atacagtgtg ggcttctgag gtttcctggt tcaaggtgtc
34141
       cttgttcaat gcggcatqqq tcattccctq agcatttttt ttttttttq acaqtctcqc
34201
       tccattgccc ggtttggagt gcagtggtgt gacctcggct tactgcagcc tctgcctccc
34261
       aagttcaagc aattctgcct caggctcccg gataattttt gcatttttag tagagacagg
34321
       gtttcaccgc gctggccagg ctggtctcga acccctaacc tcaagcgatc tgcctgcctc
34381
       ggtctcccaa agtgctggga ttacagacat aagctaccgt gcccggcctc cagagcatct
```

FIGURE 1-J

34441	ttattctcag	tttcagcggg	aagaaggggg	aaggttggta	aaaagagagg	cacaaagttt
34501		ttgcgtgaag				-
34561		ctactcgttg				
34621		cccctagat				
34681		tagaaaatat				
34741	aatctagccc	catctttaga	gaagaaattg	agtaacggat	ctacatccat'	tgaggaacta
34801	tcgacacccc	aggggcccat	gaaatgtaaa	ctcgcactca	caattaacca	tctttctcca
34861	acgtgtgtat	ttcatgtagc	cacactctca	gatgcccacc	cccatgacct	acaagtccta
34921	aacagggaaa	cctgtggcac	atgggttcat	gtgtgtctga	atctatacqt	tcagagatga
34981		ctctccctat			_	
35041	_	caggctcaca		_	_	
35101		acaaagtatt				
35161		gccatgtttg				
	_					
35221		tgttcctgga	_			-
35281	_	gcacacacac			_	
35341		tcactcccat				
35401		gaactctctc				
35461	agaccccggt	gagggtcttg	cttttcacaa	tccccaatcc	cagaccacat	cctgtgcccc
35521	aaaacaactt	ccatggtaac	cacatccttc	aggaagtgaa	gtcaggcagg	aagtcaagtc
35581	agaagacgga	atgggctggg	catggtggat	cgcacctgta	atcccagcac	tttgggaggc
35641	agaggcaggt	ggatcacatg	aggtcaggag	tttgagacca	gcctggccaa	catggtgaaa
35701		actaaaaata				
35761	-	gaggctgagg				-
35821		gcaccattgc				
35881		cgtctgtgat	_		_	
35941		ggaggttgca				
36001		acagagctga				_
36061		ctacgagaga				-
36121		tttttaagga				
36181		agggatgaaa		-	_	-
36241	gtggaggcca	aaagataaga	tgggccagtt	tattgatatg	ggtggtgcca	gctgatccat
36301	caagtacagg	gtctgcaagt	taaacgctga	tcttagaagc	agtttaggga	gggtcacaat
36361	cttgtagcct	ccagctgcat	gactcctaag	tcataatttc	taatctcgtg	gctaatgttc
36421	gtcctacagg	gccaatctag	tccccaqqca	acaaagaggt	gtgctttgga	aaagggctat
36481		taaactataa				
36541	_	aggttagaag	_			
36601		aaggtggttt		-		
36661		aaaaaaaaa				
36721		aagtggtggt				
36781		tgaagtaaga				
36841						
		aatcagaaga		-		
36901		aaatcagaag				
36961		gtgaacaggt				
37021		ctctctgcag	-			
37081		ttccttcatt				
37141	gtgattgacc	aaggtaagtc	acaactatct	tgttctttaa	ttttggtgtt	gtttgttatg
37201	acttgttagc	cgtctagcac	tcatagcttt	gcatttccac	tctgcattac	ttgtatttt
37261	attattttgt	gatattcgta	ataatttatt	ataaaactgt	gttatttttg	gatatttta
37321		cgattttta				
37381		aagtcttctc				
37441		catacttcta				
37501	_	gcacctttca				
37561		gcttttaatc				
37621						
37681		aggggtgggg				
		ttgttctctg				
37741		ggatgagcca				
37801		attttcgctt				
37861		tgtacgtgca				
37921	-	tgtcttctta	-			
37981		aaatttttgg				
38041	gctttgagca	ggattagggg	cggcgtggga	acctaaagtg	ggagcgatta	agctgaagga
38101		gtaaggggtg				
38161	ttattggtga	tggcctggat	acagttttgt	atgaattgaa	aaactaaagg	gaataaggaa
38221		caggtattaa				
						-

FIGURE 1-K

```
38281
       agtgcctaag gaggttcagc atagccttgc cagcaaagat tatttattta ttttaagagt
38341
       taacagtggc ggtatgggga tagtaccagg agataccagc tgtgctggct tggagaaaca
38401
       gtgtaaactg gcagtgtaaa caagagcagg gcatgtgtga gtagttgaga acggtgaata
38461
       ggagtatgac tagacagaag atagtaggga tgacaagttt tttggggcac aatctaagtt
38521
       ggtctggtgt ctggaatgag actggggcct aataaaaagg agtgtctaca caggagctta
38581
       aatgggctqt atcttqtagc attccaagga caggcctgaa ttctggaagc gaaaatqqta
38641
       aaagtattgt ccagtccttt ttaagttggt ggctgagctt ggtgaggtgt gtttttaata
38701
       gaccattagt ctgtcactga atactaagag cctgaaaaaa tgcttggctg atttgactaa
38761
       taaaggctgg tctgttagca gactgtatag aggtgggaag gctgaactga ggaattttgt
38821
       ctgacagaag ggaatgacaa ggctaaactg aagaattatg tctgacagaa gggaagaaat
38881
       qactqcqqtq qccttctcaq accctqtaqq aaaqqactqt acttacccaq tqaaaqtqtc
38941
       tacctagact aagaggtatt ttagttatct tactcggggc atgttgagta aagctaattt
39001
       39061
       ataatccatg aggagtagta gaatagctga tgcaacactg agaagtgatt tctttgagga
39121
       tagatttcca caatggaaag gaaatgagag gttctaagag gctggctagt ggcttgtacc
       atagcatagc ctgcctttgc tggtgtgtgg cgattaggcc tggtggaacc gccatcaata
39181
39241
       aactaagtgt qatcagggtq agaaacaggg aagaaggaaa tgtggggaaa tggggtgaac
39301
       gtcaggtgga tcagagagat gcagtcatgg gggtcaggtg tggtatctgg aataatgtgg
39361
       gaggccagat tgaagtccgg gccaggaaca atggtaattg tgggacttaa caaagagtga
39421
       gtacagctga aggagccagg gagcagaaag tatatgcatc aggtgtgagt aagaaaatag
39481
       attttggaaa ttatgagagc tgtagagagt gagttgagca tagtttgtga ttttgagggc
39541
       ctctaaaagt attaaagcag cggcagccac agcacgcaga tatgagggct aggctaaaac
39601
       agtaaggtca agttgtttgg acagaaaggc tacagggtgt ggtcctggct cttgtgtaag
39661
       agttctgacc gcgctaacca tgcctaggaa ggaaaggagt tgttgttttg tagaaggtgc
       tggggcttga gagatcagtc agacacgatc agcagggaga gcacgtgtgt ttttatgaga
39721
39781
       attatgccga gataggtaac agatgaggat gaactttggg cttgactgaa gtaatggggg
39841
       ctqtctqtga aaccttqcaq cagtacagcc caggtaattt gctgagccta atgggtgtca
39901
       gggtcagtcc aagtgaaagc gaagagaggc tgggacgagg ggtgcagggg aatagtgaaa
39961
       aaagcatctt taagatcaag catggaatag tgagttgtgg aggaaggtat tgaggacaaa
       agagtgtagg ggttgggcac cacagggtgc ataggcaaaa caatttgata aggcgcagat
40021
40081
       cctgaactaa tctgtaagac ttttccggtt tttggacagg taaaatgggg gaattgtaag
40141
       gagagtttat aggttttaga agcccatgct atagcaggcg agtgataaca ggctttaatc
40201
       cttttaaagt gtgctgtggg atgggatatt ggcattgagc agggtaaggg tgattaggtt
40261
       ttaatgggat ggtaacgggt atgtgatcag ttgccaggga aggagtagag atgtcccata
40321
       cttgtgggtt aaggtggggg aataggagag gaagacgcga aggaggcttt gggttgagga
40381
       gaagggtggc aatgagatgc ggctgtagtc caggaatagt cagggaagca gataatttgg
40441
       ttaaaatatc tcggcctaat aagggaactg ggcaggtggg gataactaaa aaagagtgca
40501
       taaaagagtg ttgtccaagt tggcaccaga gtgggggagt tttcaggggt ttagaagcct
40561
       ggccgtcaat acccacaaca gttatggagg caagagaaac aggcccttga aaagaaggta
40621
       atgtggagtg ggtagcctcc gtattgacta aggcgacgga cttaccttcc accgtgagtg
40681
       ttacccgaag ctcggcatcc gtgatggtct acagagcttc cgaggcgatt gggcagcatc
40741
       agtcttcagc cgctaagccg agaaggagtc agagagcctt gggccagagt tccaggggct
40801
       ctgggagtgg ctgccaggtg agttgaacag tccgatttcc agtggggtcc cgcacagatg
40861
       ggacacggct taggaggaat cctgggctgc aggcattcct tggcctggtg gtcagatttc
40921
       tggcacttgt agcaagetee tgggggagga ggttetggag gaaegeetgg eegetgeggt
40981
       tcagttccct tcttgtgtgc tggagatgtg gctggggttt gtctcacagt ggaggcaagg
       aattgcaact tttttctatt attgtacacc ttgaaggcga ggttaattaa atcctgttgt
41041 .
41101
       ggggtttgag ggccggaatt taatttttgg agttttattt aatgtcggga gcagattggg
41161
       taataaaatg tgtattaaga ataagacggc cttttgactt ttaagggtct agggctgtaa
41221
       agcttctcag ggttgctggc gaacgagcca tgaattgggc tggattttta tatttgatga
41281
       aaaagagcct aaacactatc tgatttggga taaagaaaaa ggagcattaa ccttgactat
41341
       gcctttagct ccagccacct ttctaagagt aaattgctgg gcaggtggaa gagggctagt
41401
       cactgaacga aactgtaagc tggaccaggt gtggggaggg gaggtgataa aaagataata
41461
       cggtggagga gcggaggctg aggaagaatt gggacctagc tcagcctggg gaggagggag
41521
       aggtcagacg ggtctgtaga aaaggaagat tagaaagact cagcgacgct tggggttgag
41581
       actgagggga caggcaggag ggaaagaagg aagatttggg acgagttgca ctgggcacag
41641
       agactaggaa gggactgatg tgtaaaagaa tgcctggacg tcaggcacct cagaccgttt
41701
       gcccatttta cgacaagaat tatttagatc ttgcaggatg gaaaaattga aagtgctgtt
41761
       ttctggctat ttggaactgc tgtccagttt gtattggggt caagcggcat tgcagaagaa
41821
       aataaggcat ttaggtttta ggtcaggtgt gagttgaaga ggttttaagt ttttgagaac
41881
       acaggccaag ggagagaagg aggaggaatg gagggtggaa ggttgcccat agtgaaggag
41941
       gcaagcctag agaaaagaga gagtagagac acggagggaa ggggttcggg agttcttacc
42001
       ttccagaaaa gcgggaaagg ggttggggca tggatataag gggttggggc acagagataa
42061
       gaggttgggg catggaaata agggatcagg gtgcagagat acgaggttgg ggtacttgcc
```

FIGURE 1-L

```
42121
       cctctagaaa agcgggactt gccgctaaga gtgaaggaga aggggttggg ggtttcttgc
42181
       cccccagaaa ggtggagaag gggtagagac atggagagga ggggttgggg aacttgccc
42241
       ttccccagaa aagtgggact tgccactaag ggtgaaggac caaggcaggc atccctgcgt
42301
       gatctgacac ctctgaagcg tgggtatata atcagagagg cgtccctgca atgattaaac
42361
       gccaagggaa ggctgccttc cctagtccgt gaccggcgcc ggagttttgg gtccacagat
42421
       aaaacqtgtc tcctttgtct ctaccaqaaa atgaaaqqaa ttgaaattaa qagaaqqqaq
42481
       agattgaaga gtggaaagga gaaagtggtt gagggacagt gagagaggtt ggagaagaga
       gtaagaagag gtcgcttacc caatttaaac ttggtgagat gttccttggg ctggtgggtc
42541
42601
       tgaggacctg aggtcgtagg tggatctttt tcacagagca aagagcaaga caggggattg
42661
       atctcccaag ggaggtcccc cgatccaagt cacggcacca aatttcatgt gcgtccatgt
42721
       gaagagacca ccaaacaggc tttgtgtgag caataaagct tttaatcacc tgggtgcagg
42781
       tgggctgagt ccgacaagag agtcagcgaa gggggatggg gtggggccgt tttataggat
42841
       ttgggtaggt aaaggaaaat tacagtcaaa gcggggttgt tctctggcgg gcagagtggg
42901
       ggtcacaagg tgctctgtag gggagctttt gagccaggat gagccaggag aaggaatttc
42961
       acaagacaat gtcatcagtt aaggcagtaa caggccattt tcacttcttt tgtggtggaa
       tgtcatcagt taaggcagga accagccata tggatgtgta cgtgcaggtc acaggggata
43021
43081
       tgatggctta gcttgggctc agaggcctga cagcacctac ctaaaaaatt ccaatagcac
43141
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       gagacaccca cttttagctg ttttctttag gaacttgtta atattaggtt tctaaaaaca
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43261
43321
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43381
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43441
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43501
       tacaggcgtg tgccaccacg actggctaat ttttgtattt ttagtagaga cagggtttca
       ccatgttggc tgagctggtc tcgatctcct gacctcgtga tctgcccacc tcagcctccc
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43621
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43681
43741
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43801
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43861
       cctcccggg ctcaggtgat ccccaacctc agcctcctga gtacctgaga gtaggcatgt
43921
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43981
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44101
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44221
       ttcccattcc cccttcaccc aagctgtgtg ctcactagcc ctgattcaca gccgtcgtcc
44281
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44341
       caMagtgccg ggattacagg cRtgagccac tgtggccagc cattcttttc ctttttaaa
44401
       acaattttta tcttctttat tttaagtaga gatggggtct cactatgttg cccaggctgg
44461
       tcttgaactc ctgggctcaa gcgatcctcc tgccttggcc tcccacagtg ctaggattac
44521
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44581
       aatgcctaaa cgctataata aatatagaac tttaccttga gaagacctaa catttccttc
44641
       agaaagtaaa tatgagaggg gtggagacgg tgcattatct tatttttatg attttaaaaa
44701
       tgtatacaga attgtacata tttatggggt ggacagcaat attgcagtac atgtatacaa
44761
       cgtgctatga tcaaatcagg gtaattgaca tattcatccc tgtatttttt gagacaaRgt
44821
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44881
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       44941
45001
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45181
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45241
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45301
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45481
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45541
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45601
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45661
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45721
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45781
       caggattatt aggatcacag ccccgaggca tatccggacc aggttgccct tggtgtagta
45841
       ctggcgggca ggacctggag gaatgaggag aggcaggagc aggtgaaaga gcccacctcc
45901
       aggacccct ccaagccaca tctgggcttc tcagagatcc tattattctc tactagctag
```

FIGURE 1-M

```
45961
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46021
       gaccccaatt ctctaagtag cacctctccc tcctgtgctc tcacagggct ctgagacaac
46081
       tcctccccag acacagatgc tgcctcgtta tctgatgcat tgcaaaaagag aggacagtta
46141
       taaggggtgg ggaagagatg gaatctctct ttctctgacc ctttttaaaa tctcaacctt
46201
       cccacctgat cttaatgccc aattctgaac cccatacgct gatattctgc ctttactcta
46261
       cacactggaa cccaagatct gagagctgca gcccctgcgt agacaaagga gttggctttg
46321
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46381
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46441
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       cacacatggK gaggcacaat tccacagcat ttaagaaaag catgggccgg gcaYggtgcc
46501
46561
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46621
       gttcaagacc aacctgagca acatagaaaa accctatctc tacaaaaaaa tacaaaaatt
46681
       agccaggcgt ggtggcacgt gccagtaatc ccagctactc agtggaggct gaggcaggaa
46741
       gatcacctga gccctgggag gttgaggctg cagtgagcca ggattgtacc actgcactct
46801
       agcctgggaa acagagcgag acMctgtcca aaaaaaaaaa agcaagaact gtagagtcag
       gctgtcctcc agatttgaac cccaactcta tcacctatta gatgtcagtt atctggcaag
46861
46921
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46981
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47041
       47101
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47281
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       qcqtqagcca ctgcacccgg cctccagctc tcttattcct caagtatctc ctgagactcg
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47401
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47461
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47521
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47581
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47641
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47701
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47761
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47821
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47881
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47941
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48001
       tcagcatgtt ggccaggctg gtctcctgac ctcaggtgat ccactcacct tggcctccca
48061
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48121
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48661
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48721
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48781
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48841
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48901
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48961
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49021
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49081
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49141
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49201
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49261
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49321
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49381
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49441
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49561
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49681
       gaacataagt tttctgttct cttgggtaca cacccagggg tggtggaatc actgggtcat
49741
       acagtaactc tgtgttttac tttttgaaga actaccagac ttctttcttt tttttctttt
```

FIGURE 1-N

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49801
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49861
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49921
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49981
       gtagaggcgg ggtttcacca tgttggccag gatggtctcg atctcctgac ctcgtgatcc
       accetecttg geeteteaaa gtgetgggat taeaggetge geetggeeac agactgtttt
50041
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50161
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50221
       ggtgaatttt atggtatgtg aattatatct cagtttgaat aataagatgt ggatccatgt
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       tccaacttag gccattttct ttttttcttt ttttttttt ttttgagaca gagtcttact
50341
50401
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50461
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50521
       cacgcctggc taatttttt gtatttcag tagagatggg gtttcaccgt gttagccagg
50581
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50641
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50701
       accaaaatat tootgaactg cotcagotga taaatacgaa gotottgttg cagtgggtac
50761
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50821
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50881
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50941
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51001
51061
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51421
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51481
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51601
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51661
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51781
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51841
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52381
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52441
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52681
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52741
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52801
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       gtcctgaatg gtattaccta gattttcttc tagggttttt atagttttcg ggttttgcat
52921
52981
       ccaaqtcttt catccatctt gagttaattt ttgtacaagg tgtaaggaac gggtccagtt
53041
       tctattttct gcatatggct agccaattct cccagcacca tttattaacc cacagccaat
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53161
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53221
       taaaggatac tcaaatagga agaggaaa tcaaactatc tctgtttgca gatgacatga
53281
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       acaatagaca ggcagagagc caaatcatga aggaactccc attcacaatt gctacaaaga
53461
       gaataaaata cctaggaata cagctaacaa ggaaagtgaa ggacatcttc aaggagaact
53521
       acaattcact gctcaagaaa atcagagcgg acacaaacaa atggaaaaac attccatgct
53581
       catggatagg atgaatcaat atcgtgaaaa tggccatact gcccaaagta atttatagat
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FIGURE 1-O

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53761	aagctggagg	cctcaggctc	agacttcaga	ctatattaca	aggtgatagt	aaccaaaaca
53821		ggtacaaaaa	-			
			-			-
53881	_	acatctacaa	_		-	
53941		ccctatttaa	-			
54001	atttgcatgc	catgtgatac	agtttgaata	tgtgttccca	ccaaatctca	tactggatta
54061	tgatccccaa	tgttggaggt	gggggcctgg	tgggaggtgt	ttggatcata	ggggtggatc
54121	cctcattact	tggtgctttc	cttgcaatag	taaqtqaatt	ctcacaagat	ctggctattg
54181	•	catqtcccc			-	
54241		taccccctct	-			
-			-			
54301		gccagccttc	•		-	
54361		atcaatgatc	-	_	_	
54421	tagcatgaaa	tattgctcag	caatcaaaag	gaacacatca	ttgatacata	cagcagcttg
54481	gatgggcctc	aggggcattg	cactgagtga,	caaaaggata	tctcaaacgg	ttgcatactg
54541	gatgatccca	tttacatcag	attctagaaa	tqqaaqatta	tagagatgga	gaacaaatta
54601		ggagttaggg				
54661		agggaggccc				
54721		tctacaactg	-		-	-
54781	_	ctggttttta		_		
54841	actggaaaaa	gagcacatgg	gattcttctg	ttctatcatt	gtagacttcc	tgtgactcta
54901	gaaccatttc	aaaagagaaa	gttcaaaaat	tcagtcagaa	gcacacgcac	acatatgcac
54961	gcatgcacac	acacacatat	gcacgcatgc	acacacatat	gcacgcacac	acacatatgc
55021	acqcacacac	gcacatgcac	gcacacacac	atatgcacgc	acacagtatg	tgaccatctt
55081	_	gcccactagg	-			-
55141	_	cctcqqctct	-	-		-
55201		gttagacacg		_		
			_		_	
55261		ggtacaccgt				
55321		aacttaccgc				
55381	atcacctggg	aacttactag	gaatgaaaat	gactggattc	accccagacc	tactgaagca
55441	gaagccctgg	gggctcagaa	atctattctt	taagcctcca	ggtgattctt	atgctcatgg
55501	aagtttgaga	accgctgatc	aatgcaWtca	gtgactcaga	aacagagtcc	cggactctac
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55621		gctggactcc				
55681		accatccacc		_	_	
55741		accctgttta				
55801		-				
	-	actgaattaa				
55861		tacgctgtgc			_	
55921		ttggtaaccg				
55981	-	gctctgtcgc		_	-	
56041	gtttcctcac	cggaaaaatg	agcctaaagt	agcttacatc	actggactgt	tgtggatgtt
56101	aataagcatt	tgagctgggt	gcagtgcctc	atgcctgtaa	tcccagcact	ttgggaggct
56161	qaqqaqqqca	gatcacttga	ggtcaggagt	tcaagcccag	cctggccagt	atggtgaaac
56221		ctaaaaatac				
56281	-	aggctgaggc	_			-
56341		caccactgca				
						=
56401		ccRggcgtgg				
56461		acctgaggtc				
56521	-	aaatacaaaa				
56581		tgaggcagga				
56641	agatcactcc	actgcactcc	agcctgggtg	acaaagtgag	actcYcccca	aaaaaaaaa
56701	aaaaaaaaa	agcagcagca	tttgtaaagc	acacctggca	cattctgggc	tattaacaag
56761	gaaatgcatg	cagctcccgt	ccRcctttt	caacctcagt	tctatttctt	ctggattcct
56821		cctcactgtg				
56881		gtttgattta				
56941	-	gtggtacaat	-	-		
57001		attaaacact				
57061	•	gtgtttctac		-	_	•
57121		ttttgtgact				
57181		atttccttct				
57241	acattatgag	gtatgctgct	cttttttgaa	agaaaccccc	tttaagaatg	gtagtcaagt
57301		ggctcacgcc				
57361		tcaagaccag				
57421		cgggcatggt				
		- , , , , , , , , , ,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	- 5	,	- 222-22

FIGURE 1-P

```
57481
       agcagaatcg cttgaacccg gaaggcggag gttgcagtga gctgagatcg cgccactgca
57541
       ctccagcctg ggtgacagag tgagacttcg tcaaaaaaaa aaaaaagaaa cctccattct
57601
       cccagctgcc tgtagcccag ggcttcctgc cctcccactt ccttcccacc tctqqccccq
57661
       cccctgcagc ccagggette etgecetece actteettee cacetacgge eccqcccetq
57721
       cageceaggg ettectgeee teccaettee tteccaecta eggeeeegee eetgeageee
57781
       agggetteet geeeteecae tteetteeca ectaeggeee egeeeetgea geeeaggget
57841
       tectgeeste ceaetteett eccaectaeg geeegeese tgeageesag ggetteetge
57901
       cctcccactt ccttcccacc tacggccccg cccctgcagc ccagggcttc ctgccctccc
57961
       acttectice caccietge geogeocetg cageceaggg ettectgeec teccacttet
58021
       ttcccaccta tggccgcgcc cctRcagccc agggcttcct gccctcccac ttccttccca
58081
       cctacggccc cgccctgca gcccagggct tcctgccctc ccacttcctt cccacctacg
58141
       gccccgcccc tgcagcccag ggcttcctgc cctcccactt ccttcccact tatggcccct
58201
       cccttggaat ggccatcagg acctataaag gctgaggaag aaaggtttgg tctgcactac
58261
       ccctacctgt gaccacaagc tccagggggt cgctgggggc Ygaccacagg tatgggtccc
58321
       tgctggagaa gctgtagcat cggtaggttc cgctgtgggc ggcggtcacc gtgatgatgg
58381
       gRaaactagc ccKgtaccat ctctcgggat tcttgtaggg cgcagggtcc ccttccttgt
58441
       acagagcaaa ttggtcaaag ccataccgag tctgacactg tagggttacg tccctcctg
58501
       acgacaccgc cgggccgggc tgggctgaga gcgagggttt ggcaaaaact cctgggagaa
58561
       aaagaaagtc tgatgttgaa ggcaggagcc agcatctcag ctgagactgg ggaggtcccc
58621
       acacctqcct aagagctggg gagctttttg gctgtatccc tcccagagag cgcactcccc
58681
       cacccaagct cacagagagg tcgagtcacc cagtggttga ggaaggaggc tgtgctcacg
58741
       tcctagtgct tgggtgcaaa tcctagttct gccttcaggg gcctggtggc cctggagaca
58801
       aatctccctc tgtatctgag cctcactgcc ttgttctgtt aaaatgggga tgactgaatg
58861
       agacagtaYa cagtaatttg cagagtgcct gttgcctagc aagcgctgga gtaagtaaat
58921
       agcttaagct tatactgtgc tgtaagcttg tattgccaca tacaattgtt acgttgtaaa
58981
       59041
       gaatcctcag agacctatgg agtcctcact cttaatgtcc ctattttata aatgaaacta
59101
       aggcacatgg cattaaataa tttgtccaac tctaggtaac aatactgcag tgtaYagctg
59161
       aaatttgcta agagggtaga ttataagtRt tctcacacac aaaaaagtta actgtgtcag
59221
       gtgatgtatg ttaattagct tgctagtagt aactgtctca cagtggattc gtatatcaaa
59281
       acatcaactt gtacaccttg gatatattcc atttttgttt ttcaattata cctcaacaaa
59341
       gctggacata ttttaattta aaaataaata aaaaacttgt ccaagatcat aagtggcaga
59401
       gttgaaatct gcactcacag agtttgattc cagggtctcc gctcctaaac acgaacctac
59461
       actactctga tgtgaggttg ttgtcataga ccggtgtggt gatgcatgcc tgcacacagg
59521
       agtcagaaaa acaaaggttg aggctgggtg cggcggctca caccggtcat cccagcactt
59581
       tgggaggcca aggtgggagg atcgcttgag cccaggaagg cgaggctgca gtgagctatg
59641
       atcactgtac actagcctgg gtgacagagt gagaccttgt ctcaaaaaaa gacagagaga
59701
       gaaagcaaaa gaaaggaagt aaggaagata aaaatataag ctgcctaata attatggcat
59761
       tcactcaaca agaagaaaaa gaaagaaaga ggaaggaagg gagggaggga ggaaggaagg
59821
       aaggaaatat ataagctgcc tgataactgt aacattcact cagcaatatt ttctcttaat
59881
       tttcacttaa gcaactatta tgtgtctgtc tgtattcttt ttttgttgtt tcatttgttt
59941
       tgttttgttt tgttttgttt tgagacggag tctcgctctg tcacccaggc tggagtgcaa
60001
       tggcatatat atatatat atatatat atatatat atatatat atatatat atatatat
60061
       atatttttt ttttttttt ttttttttt ttttttgggaa acagaatctc actctgttgc
60121
       ccaggctgga gtgcagtggc atgatcccag ctcactgcaa cctccacctc ctgggttcaa
       gcgattctcc tgcctcagcc tcccgagtag ctgggactac aggcatgcac caccatgccc
60181
60241
       agttaatttt gtatgtttag tagagacagg gtttcaccat gttagccagg ctgatctcga
60301
       actectgace teaggtgate egtecacete ggeeteceaa agtgetggea ttacaggegt
60361
       gagccaccgt gcccgaccag gaattaaaaa tagacaacca ccaccaagat aaaaaaaggt
       atacttcaca taccagatag tgaggaggc cactttgact agggtggtgg gggatatact
60421
       tagcgagaag agagtatttg agtctgaccc tgaaagaagt aatgaggcag ccaggctggt
60481
60541
       ccattctagt agcagagag aggccagtga tgctgtggag gggagtgagg cagggaagag
60601
       gggagggagg caggatttat aacgcggaat agaccacagt gcagctggcc aggaattagg
60661
       gtggcgtgag tgaggcactc tcctgggatg taaaatttaa ttattcccaa acaattaaca
60721
       tatttgaaaa aattattgaa aatttgaaga gtaggtcgtt aaaactcaca ttattctgtt
60781
       tgaatacttt attcccctga aagatttatt agaattttac attctaggct tttgtggatg
60841
       caaqcqcatc aqtqctattt ccaaaaccta cttctaqaaa ataaccattt aaaaqtqcac
60901
       taactgggtg cacctatagt cccagctact agggaggacc acttgagccc agggatttga
60961
       ggctaaagtg agctatgatc atgcctgtga atacagcgag tgtactaaag cctgggcaac
61021
       atagtaagac ctcttctctt ttttttttt tcccaagacg gagtcttgct ctgtcgccca
61081
       ggctggactg cagtggtgca atctcggctc accgcctccc aggtttaagc gattctcctg
61141
       cctcagcctc cggagtagct gggattacag gagtgcgcca ccgcgcccag ctaattatta
61201
       ttattttttt tagtagagac ggggtttcac catgttggcc aggctggtct caaactcctg
61261
       accttaagtg atccacccac ctcagcctcc caaagtactg ggattacagg cgtgagccgc
```

FIGURE 1-Q

```
61321
       cgcgcccggc ccaacctctt ctcttaaaaa aaataaataa ataagaaaag aaattagaat
61381
       atttgcacca atcaagagtc taaggagaca taaatactaa atgcactgtg gggccctgga
       cggggtctgg gaacagaaat aggatattag tggaaagact ggtgaaattc aaatagcctg
61441
61501
       qaqtttactt qatataatat aqttqtqtct atqqttaqtt ttttqtttqt tttttqatac
61561
       agggtctcac tctgtcaccc aggctggagt gcagtggcgt gatcacagct ccctgcagcc
61621
       teggeeteec tggeteaage gateeteetg ceteageete etgagtaget gggaetatag
61681
       qtqtatqcca ccatqcccca ctaattttta attttqttta aaqatqaqqt ctcactatqt
61741
       tgcccaggct ggtcttgaac tcctgagctc aagcaatcct cccgcctcag cctcccaaag
61801
       tgctgggatt acaggtgtaa accactggga ccagtgctac gtttattttt tggttgtaac
61861
       aaatgtaaga tgttaacatg aggggatcct gggtgaaata tttccattaa tattatcttt
61921
       ggaacttttc tgtcagtcta aaaattactc caaaacaaag ttttaaaaaag aatcccgagc
61981
       caagcacggt ggcccgtgac cgtagtccct gctactcatg aggctgaggc aggaggattg
62041
       ctcaaggcaa ggagctccag gctgcagtga gctatgactg ctcctatgaa cagccactgc
62101
       actccggcct gggcagtgta gcaagacccc atcgctaatt tttttaagtg cattaaaaca
62161
       cagataaagg gttgcctgtt tttcgttttg gcacagactc tggtatgact tgacacaggc
62221
       actggctgat tctgccttta tttgaaattc tggttttttt cattgtggat gtttttgcaa
62281
       tttattttga ttttttaaa aattgcatga aaatgttatt cacagccaga tgcagtggct
62341
       cacgcctgaa atcccaacac tttgggaagc caaggtggaa ggatagcttg agcccacagg
62401
       agttcgagac cagcctgagc aacatagcga gaccctatct ctctcttt tgtattttaa
62461
       tqccttttqt qaaaactqtc aaqaqacccc atctctataa aaacataaaa aatqaqctqq
62521
       gcgtggtggt gcacacctgt aatccYagct acttggaggg ctgaggcRgg agaatcgctt
62581
       gagccctgga ggtggaggct gcagtgagcc aagatcgcgc cactgctctc caccctgggt
       qacqcagcaa gaccctgtgt ccaaaaaaca aaatattatt cacattgatc cataaatgtc
62641
62701
       gtggcaccac caccegetag gccagtgcct cgtttgcctc accctaatcc ctgccctcaa
       tgtcccccgt atttgtgtcc tgaacggagg accacgcagt cccaggctcc gatcccctt
62761
62821
       cctttacccg tggcaacgag ctccagctgg tcgctgggca gggaccagag gcttccgttc
62881
       tggtaggagc agcggtagcg tccagccaga cttctcttca tggccgggat gaagaggact
62941
       gcctgatcct ggtacctgct ggaactcagc ttctccaggc ggtacaggtc cacgcccgga
63001
       ggtccctggc accggagggt cactggcttc tccaggggca ccagggagct gggcagagcc
63061
       tggagggagg gcttggggag cggtcctgga agaggagcag ggctgggtca gcctccccgc
       agaccccgcc tggaccccgc tgctcccqcg ctqqcqqatc ccqcaqqaqq qaaqqqqtct
63121
63181
       ggggaaggac tcaccactct gcgctggcac acgccccaga cacagccctg aggaaagaag
63241
       aaagggacca gatgccagga ctcgctttta tggacattcc tgcctgctgg gcgcggtgat
63301
       aagacatttg catgcatatg ctttactctg tcctaataat ttcttcaaaa gacacacagg
63361
       aatgtaattt aagtgagaga aaccggtcag aaaaagccac atagtttatg aggtcattta
63421
       catgaaatat ccagaatagg taaatctata ggagatggag aagaaagcag atccatggct
63481
       gggggtggtg ggagaggagg gcaaggcatg gtggcgtact gctctctgtg gacttgttcg
63541
       tgttagacac ggtgggctcg ttcgtgttag acacggtgga ctcgttcgtg ttagacacgg
       tgggctcgtt cgtgttagac acggtgggct cgttcgtgtt agacacggtg gactcgttcg
63601
63661
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       cacggtggac tcgttcgtgt tgtgttagac acggtggact cgttcgtgtt gtgttagaca
63721
63781
       cggtggactc gttcgtgtta gacacggtgg gttcgttcgt gttagacacg gtgggttcgt
63841
       63901
       agacacggtg gactcgttcg tgttagacac ggtggactcg ttcgtgttag acacggtgga
63961
       ctcgttcgtg ttagacacgg tggactcgtt cgtgttgtgt tagacacggt ggactcgttc
64021
       gtgttgtgtt agacacggtg ggctcgttcg tgttgtgtta gacacggtgg actcgttcgt
64081
       gttgtgttag acacggtggg ctcgttcgtg ttagacgcgg tgggctcgtt cgtgttagac
64141
       gcggtgggct cgttcgtgtt gtgttagaca cggtgggctc gttcgtgttg tgttagacac
64201
       ggtgggctcg tttgtgttgt gttagacacg gtgggctcgt tcgtgttaga cattgcccat
64261
       tgacttcctc agtggatgtg aggaatggga cctgagacat tgctgtccct tcgtttcctc
64321
       ccttcagtct cccaatatta aataatatcc aagtacatta caatagtatg caattgtata
64381
       gacaagtatt gtaaatacta ttgcatattg tatattattg tattttattg tctatgtaat
64441
       atatgcgata aaaccccaca ctaatgggat gcattgggct ccaaggatgg agcaggatgg
64501
       agcctcagcg tgtaagtcag gacgtctcag catgtgctgg ccatgggttt cccggtattt
64561
       acaacatttg cttgaatcag tattccatga ttacatgata ggatataata tatataataa
64621
       tcgtttcaaa tagcctgaag gaggatgggg aaagttccca acacagaaag gatgcatgtt
64681
       tgagaagatg ggtgtgctac ttaccctgat ctgattacta tatgtatata cacatatagt
64741
       gcatatatgt aaacctacat ctatacatac atgtgtatgt acatatacac gtgtgtacat
64801
       acacacgtgt atatgtatgt atatgtatat atgtatgcat gtgtgtgtgt gtgtgtgtgt
64861
       gtgtgtatac atatgtatac aaatacatgt acataagcga tcccctcctg gaattgcttg
64921
       agcccaggag gtcaagtctg ctgtgaggta agattgcacc actggccggg cacggtggct
64981
       catgcctata atcccagcac tttgggaggc cagggtgggc ggatcacaag gtcaggagtt
65041
       caagaccagc ctggtcaaca tggtgaaaca ccatctctac taaaaatacc agaaattagc
65101
       tgggcatggt ggcacgtgcc tgtaatccta gctactgggg aggctgagtc aggagaatca
```

FIGURE 1-R

```
65161
       cttgaacccg ggaggcggag gttgcagtga gccaagatca cgccactaca ctccagcctg
65221
       ggcaacagag caagactcca tctcgaggaa aaaaaaaaat gatattgccc cattgcactc
       cagactgaca acagagcaag accctgtctc agaaaacgaa gaggaggagg aaaaaaaaag
65281
65341
       tactaattat ctgaaattcc aatttaacca ggcatccagt gttttatctg gtaaccctca
65401
       ttcttacaca cacacacaca cacacacaca cacaaaggcg ggatagttgt cattcccact
65461
       gtaaacataa ggaaactggg cagaggccaa gcaaccttgt gtagctcaca tagcaagaag
65521
       tgggtgaacc cagctcatgt cttgactctg agctcagaga gtgacaactt gtcaccagcg
65581
       cccccatagc caccacctt tgtccacccc aggctccctc tgcaccccaa cgcaagctcc
65641
       ggccgcttct ctgtccccct cctcctgccg catcacagcc cacctcagcc tctttgtagg
65701
       tttccatgcg acgctgtacc atggctggga gtcttccagg cgccgtgctg agcgccttct
65761
       gtgcatggac tccaagtcgc cataatcgta cgggttaccc accattatca gtcccctctt
65821
       atacatcagg ctagtgagac agtatcttat ccacagtcct acagctggca ggagtagatt
65881
       caaaccctag cagcaccaat tagtggtaaa gagtgtggac ttgggaactt acaggagtag
65941
       agagcacagt ggtggttacc ggggcggtgg ggtaaggttt ggggagatgt tggtcagagg
66001
       aggacagttt cagttggaca agaggagtat gtcttggaga tctactgcac atcatggtga
66061
       ctgtagttaa taacaacata ttgtacactt gcatatcacc gatagtagat tttaaatgtt
66121
       ctcaccggcc gggcgcgctg gctcacacct gtaatcccat tttgggaggc caaggtgggc
66181
       ggatcacctg aagtcaggag ttcgagagca gcctgaccaa catggtgaaa ccctgtctct
66241
       actaaaaata caaaaattag cggggcgtag tggcaggagc ctgtaatccc agctacttgg
       gaggctgagg caggagaatc gcttgaacct gggaggtgga ggttgcagtg agccaacgtc
66301
66361
       atgccactgc gctccagtct gggcaacaga gtgagactcc atgtcaaaaa ataaaaataa
66421
       ataaaaataa atgagcgtgg aatactactc agccattaaa aggagtgaaa taatgtcttt
66481
       tggccaggca cagtggctca catctgtaat gccagcactc tgggaggccg aggtgggtgg
66541
       atcacgaggt caagagatca agaccatcct gcccaacatg gtgaaacccc atctctacta
66601
       aaaatacaaa aattagccgg gcatggtggc gggtgcctgt agtcccagct actcgggagg
66661
       ctgaggcagg agaatcactt aaacccggga ggtggagttt gcagtaagcc gagatcacac
66721
       cactgcactc cagccttggt gagagagcga gattccgtct ttaaaaaaaaa aaaaaaaaag
66781
       tcttttgcag caacttggat ggagctggaa ggcattattc taagtaaagt aatacaggag
66841
       tggaaaacaa aaatctgtat attctcactt ataagtgaga gctaagctgt gggtatgcaa
       aggcatgcag agtgatgtaa tggacttcag agactcagaa gggaagggca gaagtggggc
66901
66961
       agggatgaaa aactacacat taggtacaag gtacactagt caggtgacag gtgcactaaa
67021
       atctcagaat tcaccagaat ataattcatc catgtaacca agaaccactt gtatcccaaa
67081
       agctactgaa gcaacaagcc agatgcagta acctgtacag gccacacctg taaccccaac
67141
       actttgggag gccgaggtgg gtggatcgct tgagcccagg agttcaagac cagcctgggc
67201
       aacatagcgg acccccgtaa ctaaaaaaat tacaaaaaca agccaggcat gatggtgtac
67261
       aactgtagtt ccagatactc aggaggctga tggggaggca ctggttgagc ctgggaggtt
67321
       gaggetgeag tgageeatga teatgeeact geeeteetge etgggtgaea gaagtgagge
67381
       cctatctcaa ataaaattaa ataaataaaa gttaaaacag gctgggtgcg gtggctcacg
67441
       cctgtaatcc cagcactttg ggaggccgag gcgggtggaa cctgaagtaa ggagcttgag
67501
       accagcctgg ccaacatggt gaaaccccgc ccctactaaa aatacaataa ttagccagac
       ctggtggcag atgcctgtaa tcccaactat tcgggaggct gaggcaggag aatcacttgg
67561
67621
       accogggagg cagagtttgc agtgagctga gatcatgcca ttgcattcca gcctgagcga
67681
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67741
       gatggataat gaatgagagg ttgtttatat tcacagttaa ccctctcatc tccagtaatg
67801
       caaccatctt cttcctgctt agccttttgg agatgctgtc cctttagtgg tcaaattctg
67861
       aagaaatcag gaaataatgc attcgacatg cccagcacaa gtgaagatca ggcagcagaa
67921
       atgcattcga cctgccaccc atccatcagg agactattta ctccactact gtaggggata
67981
       ctgacaaatt aaatccatac ctagtccaga tatcaattcc acaatttttt tttttttt
68041
       tttgagacgg agtttcgctc ttgttgccca ggccagagtg caatggtgtg atcttggctc
68101
       accgcaacct ccacctccca ggttcaagcg attctcctgc cttagcctcc agagtagctg
68161
       ggattacagg catgtgccac cacacccggc taattttgta tttttagtag agatggggtt
68221
       tctccatgtt ggtcaggctg gtctcaaact cccgacctca gatggcccac ccgcctcggc
68281
       ctcccaaagt gtgtaagcca tggcactcag ccttttttt tttttttt tttttttt
68341
       agatggaggc tctctctgtt gcccaggctg gagtgcaatg cctgacctca gctcactgca
68401
       acttctgcct cccagtttca agcaattctc ccacctcagc ctcccacgta gctgggatta
68461
       caagcacccg ccatcacgcc cggctaattt ttgtagagat ggggtttcac catgttgacc
68521
       aggctggtct tgaactcctg acctcaggtg atccacccac ctcggcctcc caaggttgag
68581
       attacaggcg tgagccactg tgcctggccc acatttttta aaaaaggggc aactgcagtg
68641
       tagtagaaca aagttgtgac caatgctagg atactctgtt catttcctga cccagccatg
68701
       aatacactgg aataactcat gcaaaatgcc agctcgctgg ccccccgttt ccccacccaa
68761
       caaatgaagg ggctcttaca ggttcctttt tgtcctgaaa ttcatcacca atgcaaattt
68821
       cttaaaaatc ctttgtctgg cagtccatgc ctgtccttca gcatttccca gatctgaccc
68881
       tcaggactca ccaagacaga agagggcqgt cggqgatgga gacatggttc ctcagccctg
68941
       tcctgagctc tgtggccagg gagggaagtg gtgggagcct ggggcacagg ctcaggatgt
```

FIGURE 1-S

```
69001
       gatgaggatg aagaatgctc tcctcccttc ctccaccagc cccggccttt cctaattgag
69061
       actcatcgag ccgtagccgg ctcctcagta cagtgacttg cacacaagct ccaaggagcc
69121
       gcgcttatct cctctggcca gcctggcgtt gcaccgtttg tccgcctgct ggggcctggt
69181
       ctgtgttccc qtgctcccat aaactccctg atgtcactag gaaaatacgc atcaaaacca
69241
       cagtgagata tgacttcaca ccttctggaa tggctgtatt ttttttttt cttttgagac
69301
       aaagtctcgt tctttttgcc caggttggag tgcagtggcg ccatctcggc ccactacaac
69361
       ctccacctcc caggttcaag cgattctcct gcctcagcct cccaagtggc tgggattata
69421
       ggtatgtacc acaccaggct aatttttgta tttttagtag agatggggtt tcactgtgtt
69481
       ggccaggctg gtcttgaact cctgacctca gttgatccac ctgcctcggt ctcccaaagt
69541
       gctgggatta caggcatgag ccactgcacc cgaccggcta taattttttt taatggaaaa
69601
       cagcagatat tggtgagtat gcagagaaat tgaactgcgc gtgcattgct ggcagggacg
69661
       taacatggcg cccctgctgt ggaaaacagt tccagcagct cctccagaag ttaaacgtgg
69721
       gattgccata aaatccagca attccacttc ggggtacaca cctaaaagaa ctgaaaacag
69781
       ggtctctaac atatttgtac acagtgttca tagcagcttt attcacaata gccaaaaggt
69841
       gaaaccaccc acatgtccat caacaacaat ggataaacaa catgtggtat atacacacaa
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69961
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70021
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70081
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70501
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70561
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70861
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70921
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70981
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71041
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71701
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71761
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72001
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72121
       cggagaatga tccggtgaca catRtaggtg ggaaggatgc acgaatgatg gcgtttagga
72181
       agaatattat cacttettte eegtaagage aacttagage aagaaaatgg tattattett
72241
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72301
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72421
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72481
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72661
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72721
       ggacagctat ggctgatgac cccctcacct ctgactcccc ctccctccct gctttctgaa
72781
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```

FIGURE 1-T

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72961			tgtcagttgc			
73021	tgccaccgaa	gaggggggat	attgaaaaca	tgttacagcc	aggagcggtg	cccccttggt
73081			agcctcccta			
73141			tttttaccac			
73201	gtcctacgca	cctattcgga	gaaccaaagg	ctttgaggtt	atcctcggcc	cacccatctq
73261			tgcttttccg			
			-	_		
73321	acacacagtc	teeggtegge	atgcttaggg	tagtcttcca	attccccctc	ctggtattta
73381	caccctggag	tggtccRctc	ctcttgggct	gaacctgtaa	cttqctccca	agcaagagca
73441			ggttgttggt			
73501			ggccgctcac			
73561	gcgagagggc	aagacaagag	ggctgacgag	ggacgctacc	atcacagagg	tcagttttgt
73621			ctactgtcac			
73681	cgctacatct	ccccacact	caaagggagg	tggtcgcacY	gtggggtcca	ctggaagttg
73741	cctaccagac	tcaggtcatc	ccaaacacac	cctctagcca	tttggtgtag	catcggaaag
73801			tggctcatgc			
				_		
73861	cggaagggtc	acttgagccc	aggagtttga	gaccagcctg	ggcaacatag	caaatgttat
73921	gttgccacct	ctacaaataa	ttagccaagt	gtggtggcat	gcacctgtag	tcccagatac
73981			aatcacaggt			_
74041	actccagcct	tggcaacaca	gtaagacctc	gtctctaaaa	aagcaaaaag	ggctgggtgc
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74161			tggccaacaY			
74221			cagctactcg			
74281	tgggagacac	aggttgcagt	gagctgagat	catgccattg	cactccagcc	tgggcaacag
74341	agcgagacta	agtagctatt	ctgtgtactg	taggatatta	agtaggatco	ctaacctccc
74401	-	-	catgttttct	•		
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74521	aacacagcag	tottotaaga	tgcccggact	taaacggtta	tttcctqtqa	aacaggtgaa
74581						
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74641	tgtcacccag	gctggagggc	agtggcatga	tctcggctca	ctgcaaKctc	cgcctcccRg
74701	cttcacacca	ttctcctacc	tcagcctccc	gagtagctgg	gactacaggc	gcccaccacc
74761		_	attitttag			_
74821	atggtctcga	tctcctgacc	tcgtgatcca	ccgcgcccgg	ccaagtctga	acttttgcat
74881	ggcctgttgc	cctggtgata	aactgatgcc	ttgtttccta	aaaggaataa	agccatgagt
74941			gcattcaccc	-		
75001			ttttttcttt			
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75241	tgccatagcc	agacaacagc	tcgctgtacc	acaccatcat	gggagacagc	agttattctg
75301	agcatctcac	tgctgaagaa	accaaggctc	agagaggacc	atgcatgcac	aaggtcccac
75361	-		agtgtcagac			
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75781						
			ctaagcccac			
75841	ggccacctcc	tcatcctcag	cctcgggggc	cggggccttc	tgtttgagtc	catcgaagta
75901			gttcctccgc			
75961						
			gcagccagaa			
76021	ttagtccaca	ctcgctcaga	gagaaggaag	gaagccccgc	tccccggtca	gggagctccg
76081	ggtccctgga	gtcccacaga	gccctcctct	agccctttcc	ccttaactac	ctccatctgc
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76201			cctggctttg			
76261	gtcagcccca	gtcctcaccc	taccccattt	ctcctttaat	aacatcttat	taaatqcacc
76321	-	_	ggatYtttt			-
76381			gaggcgggcg			
76441	cctggccaac	atggtgaaac	cccatttcta	ctaaaaatac	aaaaattaac	tgggtgtggt
76501			gctgctcggg			
76561						
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76621	gcaagacttc	gtctcaaaaa	aaaaaaaaa	aaagggctgg	gcgtggtgac	tcacgcctgt

FIGURE 1-U

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76801
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76861
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76921
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76981
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80341
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80401
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FIGURE 1-V

80521	cagatcaagg	tgtgggcagg	gctggttccc	tctcagggcc	ctcagggagg	atccgctctg
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80701	tagteteact	atgttgccca	ggctggtctc	aaactcttga	actcaagcaa	tectectact
80761	ttggcctccc	agagtgctgc	aatttcactg	ccccagcct	attttttt	ttttgggggg
80821	gggagatgga	gtttcactct	tgtcacccag	gctggagtgc	aatqqtqcqa	tcttggctca
80881						
	_		gttcaaacaa	_	-	
80941	actacaggca	tccaccacca	caccgggtta	attttttgta	tctttagtag	agacggggct
81001	tcaccatatt	aaccaaacta	gtctcacact	cctgacctcg	tgatccacct	acctcagect
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81781	cctattactg	ggcactggaa	atacagggtg	gacagcacag	ccgaggcccc	gtccgtgtgg
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82081			tttgttttgg			
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82201			gcgattctgc			
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82561		_	cagctacttt			
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84121						
	gatcatgagg					
04101	gatcatgagg					
84181	aaaaaatata	aaaaattagc	cgggcgtggt	ggcaggcgcc	tgtagtcccc	cgccactcgg
84181 84241	aaaaaatata	aaaaattagc		ggcaggcgcc	tgtagtcccc	cgccactcgg
	aaaaaatata gaggctgagg	aaaaattagc caggagaatg	cgggcgtggt	ggcaggcgcc gggaggcgga	tgtagtcccc gcttggagtg	cgccactcgg agccgagatg

FIGURE 1-W

84361	ccctctagag	aatcccagaa	aatagaagga	attattccat	ttcccggaag	aggaacgtgt
84421	aactaaaaa	adadacatca	cctgcccagg	tatatacaaa	cagaateete	actototoad
84481	ggacctcagt	gctccggaca	cctgtgtcca	caagccagag	acaggatcag	aggcgccctg
84541	aataaaatta	cctgggacag	tgtgcatgaa	ggtgacagtg	ctgtacctgg	tacacagcag
84601	gigettaata	aatgttcatc	cacctctgag	wetetgagge	attgeeetet	Cacigitett
84661	tataatctca	ccataatacc	tctcacctac	ccgacaacag	taccaactct	ttcttgatcc
84721						-
			cagtatgaat		-	
84781	acctgcctcc	ctagggctgt	gagtggcaca	aggacagctc	tggttcatct	cacacctcca
84841	gcacctggtc	aggtetgaga	tcacgtctgc	taaataaatq	aggtoccaca	actoccccat
			_	-		
84901	-		acccgtttac		-	
84961	agctttggcc	ctttcagtgc	cagactagaa	aagaaacaaa	gcagctgggc	atggtggctc
85021	atgcctgtaa	tcccagcact	ttgggaggct	daddcaddca	gatcacaagg	tcaggaattc
85081						
			agtgaaaccc	-		
85141	ggcatggtgg	cacccgccta	tagtcttggg	aggctgaggc	aggagaatcg	cttgaaccca
85201	agagggggag	actacaataa	gccaagatcg	catcattgca	ctccagcctg	ggtgacagag
				_		
85261	caagactcca	tctcaaaaaa	aaggtcttgc	tetgteatee	aggttagagt	geagtggeae
85321	aaatacggct	cactgcagcc	ttgaactctc	gggctcaagt	gatcctcttg	cctcagcctc
85381	ctgagtagct	aggactatag	gcacatgcca	agatacccaa	ctaattttt	tttttttta
85441			ctcactatgc			
85501	aagcaatcct	aagagaagag	attttaaatg	tggtcaccac	aaaaacaggt	aagtatttga
85561	ggtaatgcat	atottaatta	gcttgattta	accattetac	aatgtataca	atotacatca
		-		-	-	-
85621			agtatacatg			
85681	tcttgagtct	atttaaagat	gaacaagaat	agaaaagcta	gaggatggtc	ccagttttac
85741	ataaaaatat	ataaatacac	acacaaacct	attaKaaaca	agactagaaa	gatccataaa
85801						
		2222	tgcagatcaa		_	-
85861	agacagagtc	tcactctgtc	acccaggctg	gagtgcactg	gcacaatctc	agctcactgc
85921	aacctccqcc	tectagatte	aagcaattct	cctacctcaa	caccctgagt	agctgagatt
85981						
		-	ctggctaatt	_		
86041	catgttggcc	aggctggtct	cgaactcctg	acctcaaggg	atccacctgc	ctcagcctcc
86101	caaagtgctg	ggattaacag	gcgtgagcca	ctatacccaa	ccagttctgt	cttctttaca
86161						
		-	cccataacaa			
86221	gcacttgatc	aataaatgct	taataaggtc	aggtgcggtg	gctcacgcct	gtaatcccag
86281	cactatagaa	agctgacctg	ggtggatcac	ttgagcccag	gagttggaga	ccagcctgag
86341			tctaaaaaca			
		_				
86401			actcccagct			
86461	gagcccagca	ggttgagact	gcagtgagcc	atgactgcac	cactgcactc	tagcctgggt
86521						
		-	caaacaaact	_		
86581	cctgtaatcc	cagcactttg	ggaggccaag	ggaagcagat	cacctgaggt	caggagttcg
86641	agaccagcct	gaccaacatg	gtgaaaccct	gtctctacct	aaaacacaaa	aaattaqcca
86701		-	taatcccagc	-		_
			_			
86761	tgaaatcggg	agacggaggt	tgcagtgagg	caagatcaca	ccactgcact	ccagcctggg
86821	caacagagcg	agaccccatc	tgtctcaaaa	caaacaaaca	aaacaaagtc	agccgggcgc
86881	agtggcccac	gcctgtaatc	ccagcactct	aggaggetga	ggcaggagaa	tcacctgagg
86941			tggccaacgt			
87001	aaattagcag	ggtatggtag	caggcatctt	aatcccagct	actcaggagg	ctgaggtccg
87061	cacttgaacc	caggaggcag	aggttacagt	gagccgagat	cacaccatta	cactcagcct
87121						
			ctctcaaaat			
87181	cttgcaggct	gtacaaaaaa	aggcagcaac	tggacttggc	ccctaactca	tagtttgcca
87241	aaactctgct	ctaaagtttg	cttgcttcat	tcacttctca	gagcctggcc	ctaggagcca
87301			acatggccag			
87361	aaactctcgg	atagacttga	gggaagccaa	gtccaggtgc	cgggcgttga	catggtgatt
87421	gagggtctcc	ccgcggatgt	cctttgctgc	cqcctcacac	ttctccatqt	ctcggcaggc
87481			aaaacccagg	-	_	
87541	cctgggtact	gaccccagag	acatgaaaac	atacgtctac	acaaaaacac	atccaccaat
87601	gttcactgcg	gcattcttca	caaaagccaa	aaggtagaaa	caaccaaatq	cccatctqtq
87661		-	tggtccatcc		-	
87721			tgctacagca		-	
87781	gaaagaaacc	agacacgaaa	gaccacacag	cgtacaatcc	catttacatq	aattctatgt
87841			aacgcccaga			
87901			ggggtgggga			
87961	gcaggtttct	ttctagggta	acagatgttc	taagattgat	tttaaagatg	gttgcatcat
88021			cactgaattg			
88081						-
			gcaagaggat			
88141	agatggagtc	tcactctgtc	acccaggctg	gagtgcggtg	gcgcaatctc	ggctcactgc

FIGURE 1-X

```
88201
       aacctccacc tcctgggttc aagcaattct cctgcctcag cctcccgagt agctgggatt
88261
       acaggcacct accacaacta gctaattttt tatttttta tttttagtag agacagcggt
88321
       ttcaccatgt tagccaagct agtcttgaac ttctgacctc aggtgatcca ccccgcggcc
88381
       tcccaaagta ctgggattac aaataagcca caatgcccag cctccaattt tttttgttgt
88441
       ggtaaaatac aaatcactta aaatttatca tcttaacccc cttttctttt tgtttattat
88501
       tatttttttt tttttgagtc agtctcactc tgctgccgcg gctggagtgc tggcgccatc
88561
       acageteatt cageettgaa eteetagget caagtgaeet gggaetatag gtaceaeetg
88621
       tgccagcatg cctggctaac tctggtagag atgggggtgt tgctatggtg tccaggctgg
88681
       totggaacco otggootcaa gtgatootco tgootcagoo tocaaaagtg otggaattat
88741
       agatgtgagc caccgagacc cgccctctta gccattttta agtgtccagt tcattggtat
88801
       taaaaacatt tatggctggg ccgggcatgg tggctcacac ctgtaatccc agcactttgg
88861
       gagaccaagg caggtggatc acctgaggtc aggagttcaa gaccagcctg qccaacacat
88921
       tacaaactta gctgggtgtg gtgttgcatg cctgtaatcc cagctactcg ggtggctgag
       gcaggagaat tgcttgaacc cgggaggcga aggttgcagt gagccaagat catgccactg
88981
89041
       89101
       aattcctaat gttgtgcaac cattacaacc atccatctct caaattgttt catcttgcca
89161
       89221
       tggcaagcac cattccaact tctctatgaa tttaactgta ggtagctcct gtaagtggaa
89281
       tcataccgta tttgctcttc tgtcgactgg cttatttcac ttcatggaat gtcctcaagg
89341
       89401
       actetyteae eeaggetyga gtgeegtyge gecatetety eteaetyeaa eeeetyeete
89461
       tcaggttcaa gcgattctcc tgcttcagcc tcccaagcag ctgggactac aggtgcccac
89521
       cacaactcct ggctaatttt tgtattttta gtagagaggg ggtttcacca tgttggttag
89581
       gctggtctcg aactcctgac ctcgtgatcc gccagctttg gcctcccaaa gtactgatta
       caggcqtqcR ccaccgcgcc cggccagaat gcccttcctt tttaaggctg aatcatatgc
89641
89701
       ccctgtctat agaagccaca ttctgtttcc ctgttcatct gtggatgggt gcctgggttc
89761
       cttccacctc cggactgtga ataatgctgc agtgagcatg gatgtacaga tatctctctg
89821
       agagccaaag caggggagat tttacctctc ctggccagtt ccaaggcggt ctqcttcccg
89881
       atgcctgtgt tggcRcccgt cacgatgacc gtcttcccag ggatggtggc cttgctgggg
89941
       caagccccac cggtgacata gtccctgagg gtgagaagcg gcacggtcag tcctqtqqqc
90001
       ccactctcac cccacqtqcc cctqactqaa tqatctcaqq caaccttqtc tqaqctcact
90061
       cacatacccc aactgaaaca cagacatcat cacatcacac caMgggacct ctgtcatgtt
90121
       ctccataagt ggctccaccc agtgtctggc gtgtggaacg ccttcagcaa gtgacagtca
       ttattttata aatgctcact gcatgagatt cccggccagg tgagggggct tgcRcctgta
90181
90241
       atcccagcac tttgggaggc caaagttttg ggggtggggg ggggcggggg cggatcactt
90301
       gaggtcagRa gttcgagtcc agcctggcaa acatggcgag accccgtctc tacttaaaat
90361
       acaaaaatta gccagRtgtg tagggaaaag agagattaga ctgttactgt gtctatatag
90421
       aaaggaaaga cataagagac tccattttga aaaagacctg tactttgaac aattgctttg
90481
       ctgagatgtt gttaatttgt agctttgacc cagccacttt gacccaatct ggagctcaca
90541
       aaaacctgtg ttgtatgaaa tcaaggttta agggatctag ggctgtgcag gaagtgcctt
90601
       gttaacacaa tgtttccaag cagtatactt ggtaaaagtc atcgccagtc tctagtctca
90661
       ataaaccagg ggcacgatgc actgcagaaa gctgcaggga cctctgccct tgaacacaga
90721
       gtattgtcca aggtttctcc ccgtgggata gtctgaaata tggcctcgtg ggatgagaaa
90781
       gacctgaccg tcccccagcc caacacccgt aaagggtctg tgctgaggtg gattggtaaa
90841
       agaggaaagc ctcttgcagt tgagagagag gaaggccact gtctcctgcc tgaccctggg
90901
       aactqaatqt ctcqqtataa aaccYqattq tacatttqtt caattctqaq acaqqaqaaa
90961
       agccgcccta tggcgggagg cgagacatgt ttacagcaat gctgccttgt tattctttac
91021
       tccgctgaga tgtttgggtg gagagaaaca tcaatctggc ctacgtgcac gtccaggcat
91081
       agtaccttcc cttgaactta attatgtcat agattctttt gctcacatgg tttttgctga
91141
       cctcattatc accctgctct cctactacat tcctttttgc tgaaataatg aagataataa
91201
       tcagtaaaaa ctgagggaac tcagaggccg gtgccggtgc aggtccttgg tatgctgagc
91261
       gccggtcccc tgggcccact gttgtttctc tatactttgt gtcttatttc ttttctcagt
91321
       ctctcgtccc acccaactag aaatacccac aggtgtggag gggcaggcca ccccttcaca
91381
       ggcgtggtgg tgcacacctg taatctcagc tactcagggg gctgaggcac gagaattgct
91441
       tgaacctgga aggcggaggt tgcagtgagt cgaaatggtg ccagcctggg caacagagcg
91501
       agactctgtc tcaaaaaaat ttaaatttaa atttaaaatg cccgctgcac gagattccca
91561
       Wggctgctgt acgcattacc acagacttag tggcttaaaa ccacRtaagt gcatcctcct
91621
       ccagttcggc aggtcaagag tccaaaacat gtctcactgg aataaatcaa ggtattggta
91681
       gagtcaggtt ccttctggag gctctaggga agaatccact tccagctcct acagaccgcc
91741
       acattectee actettggee eegecteeat etteaacetg cateeteact ggaacetete
91801
       ctttatttat ttatttattt acttatttat ttttgagaca gagtctcgct ctgtcgccca
91861
       ggctggagtg cagtggctca atctcagctc actgtaacct tcgcctcaca ggttcaaqcq
91921
       attotoctgc cttagcotcc tgagtggctg ggattacagg cacatgccac cacacctggc
91981
       taatttcttt tgtattttta gtagagacag agttttacca cgttggtcag gctggtctcg
```

FIGURE 1-Y

92041	aactcctgac	cttgtgatcc	gcctgccttg	gcctcccaaa	gtgctgcgat	tacaggcgtg
92101					cccctctgac	
92161	gctccctctt	ataaggaccc	tataagacta	caaggcagga	ccggcacagt	gcctcacacc
92221	tgtaatccca	gcactttggg	aggccaagac	aggaggatca	cttgaggtca	ggagttcgag
92281	accagccatg	gccaacatgc	tgacacccca	tctctactaa	aaatacaaaa	attagcaggg
92341	cttggtggtg	cacgcctgta	gagtcagcta	ctcgggaggc	tgaagtggga	ggaccacctg
92401	agcccaggga	gggtgaggct	gcagtgagct	gtgacagcat	gactgcactc	cagcctgggt
92461	gacagagaga	ccctgtctcc	aaaaaaaaa	aaagactaca	tgataatcat	aagatccttc
92521	acttggccgg	gcacggtggc	tcacgcctgt	aaccccagca	ctttgggagg	ccaaggtggc
92581	cagatcccct	ttggtcggga	gctcaagacc	agcctgacca	acatggagaa	acctcgtctc
92641	tactaaaaat	acaaaattag	acaggcgtgg	tggcacatgc	ctgtaatccc	agctactcag
92701	gaggctgagg	ccggacaatc	gcttgaaccc	gggaggtgga	ggttgtggtg	agccgaggtc
92761	gtgccattgc	actccagcct	gggcaacaac	agcgaaactc	tgtctcaaaa	aaaaaaaga
92821					ggtaatgtcg	
92881	cgaggattag	gacgtggacc	cctctacgga	gtcacgactc	tgcccaccac	acccatgtcc
92941	cacagaggct	aacRctggca	acaagatagt	gtccagcaac	aggaggctga	gcaggtaaac
93001	agcactgcac	ccacaggaga	gaagggcacc	atgcaataca	gtggccacca	gccacagagg
93061	ctaatttta	agaaagttta	aattaagtag	gctgggcgag	gtggctcacg	tctgtaatcc
93121	cagcactttg	gaggccgagg	caggcggatc	acctgagggc	aggtgtttga	gaccagcctg
93181	gccaacatgg	caaaaccccg	tctctgcgaa	aaatacaaaa	attagccggg	cgtggtggcg
93241	cacgtgtgat	ctcagctcct	ggggacgcca	aggtgggagg	atcacctgag	cccaggaggt
93301	caaggctgca	gtgagccaag	atcgcgccac	tgcactccag	cctgggcgac	agagccagat
93361	tctgccttta	aaaataaacg	aacaaataaa	taatacaaaa	caacaaaata	aagagtttaa
93421	aagtctggaa	ggaaagcaac	atttacaagg	gcccaggctc	gcccttccct	ccgagtgacc
93481	ttgggccggt	gacctggccg	gccagagcgc	aggtttgccc	cactccgggc	gggcactgcg
93541	ggtcgggagc	tacggggcct	ggacccgggt	gcgaggggcg	ggggtctccg	ccgccttccc
93601	ggcccctgcg	ctgggggccc	gccttgaccg	cgcacgcggg	gctagaatgt	actcacttga
93661	gcagcacggc	ggcgcctgct	accgtgccca	gcgccgacag	cggcagcagg	tagcggctca
93721	tgccgggccg	gggacaggcg	tcaggcgtca	ggggtcggcg	cggagcttgc	tgcacaccag
93781	ccgcctgggt	agctccgagg	aagagcgcgc	gacgcagcca	caggcgagcg	gaggcgcagg
93841	cgcggctggg	cccgcgtccg	gaactgggct	gcgaggggcg	gggcgcgggc	ggagggggg
93901	gggatcctag	ggacgggacc	tatgagcatc	ggtcctgagc	gctgtcacag	ctgggattgg
93961	tggtttcagg	agcctgtggg	cgtggctagt	ccgggggcgg	ggcctatggt	ttgttcgaat
94021	gacgtcacac	ttgccgcagc	gtataaggcg	ctacgcagtt	ctggagtgaa	ataggttcga
94081	atcccaccac	tgtcaattcc	agactgtgac	cctctgtgtg	tctttcaact	atatcagcct
94141	attccctcat	ctggaaatgt	gtgtttacct	tcttcataga	cttttggaga	taatttgaga
94201	atttccatgc	acagaaacaa	ggatctaRta	gcctgtgggt	acccaagctc	ctggggtcct
94261	gcaggagaag	gcggctgggg	gcctggactc	ctgggtctga	gggaggaggg	gctgggggcc
94321		ggtccaaggg	aggaggggct	gggagcatgg	acttctgggt	ccgagggagg
94381	agggccgggt	gcctggactg				

FIGURE 2-A

>6:112446501-112541900

1	agcatctctt	ttcatttttc	tttctcagca	ggatagcttt	ttqcctttca	ctctatgaag
61	-	tcctctgtgt	_		-	
121		ctcaggctaa		-		-
181	gccSagcttc	gtgcacgtga	tctaccttqq	tccagtgatc	tatatccagg	qaaqtqaqqt
241	cgtgcatcta	aaacacaggg	cctqcccact	agctcggaaa	tcagttctta	gagaagagag
301	tggtttgcca	gataccttag	catgatgtct	gttacaatac	ctgaaatgtt	cattattaaa
361	caccaaatga	gaaacttttc	ccaqttaaac	ttgaaacata	aacattgtta	aaaaaattta
421		ataggtgata				
481		ttggaaagca				_
541	_	gttcagcaac		_		
601	ggagaaaact	agaagcaact	gaaagtctat	taatggttaa	gtgaatatag	taagtgaata
661		ttaggaagtg				
721		gaaaatttag				
781	ctgttgaaac	aagggtcaat	ataagaaaag	attagcaaat	gttgacattc	tagttaccat
841	aaaatataat	tgaaatctat	ggtgattctg	tatcttgtta	ttacaaagtc	aagtttctgt
901	ctaacactat	ttaccataaa	ggttaacaag	tttcctataa	tatggaaaag	cttgtgttag
961	tagggctgtt	gattataacc	ttgagattga	atgtttgttg	ggaaatcaca	tttgatagac
1021	aacttaattt	agaaaactgt	gtttatttaa	aggggtaact	gtgtttgctt	gagaaggttg
1081	atgtccctca	tcagcctgta	atgttaatct	gctgcctatg	aacctctgac	cagtgttcaa
1141	gtgtcagata	aaaaaatttt	caggataaat	cttttagcat	caatgtatga	gggtaacagc
1201	aagactctat	tagaatttta	tagtatactc	tgaaaactcc	ttcatagtat	cttccagcaa
1261	aatccttcat	gagaatcaat	gaaattatct	gtcttccatg	tcaaactcag	gaagagatcc
1321	taagaaacta	ctaagtttta	attatacaca	cacaaaatta	ttttgttaac	attgataaag
1381	cagtcatgta	tgaacaaagg	agaagtttca	agaggattga	aaaaagtagt	ccacatatgc
1441	tcaaatatat	ggaaaatgtc	aagatataat	ggtcagtgaa	aaaccatcag	aatggagaag
1501	gtggtggaga	cacttccctc	ttgctgatgg	tccagaagcc	agccttggaa	ggcaatcagt
1561	tcttcccctg	aaaagatgtt	caacctcact	agcattcaaa	gaaatgcaaa	ctaaaacctc
1621	_	tcagaattgc	_	_	_	
1681		tatgttcttt				
.1741		gcatattccc				
1801		aggctctata			_	_
1861	ccttgtgcta	tgctaagtgc	atataatttc	atgcattaac	tcatttagtt	tttgttacaa
1921		cagatagctg		_		
1981		gtcagggaac				-
2041		cataataaag				_
2101		gaggcaaaag				
2161		tgtcaatgta				
2221		ctgtgcagat				
2281		aaggtaggag				
2341		gtgagggagg				
2401		cctcttacaa				
2461		gcacagtagt		-		
2521		ggctatcagg			-	
2581		atgagagttg				
2641		aattggatca				
2701		cccacttgta				
2761		tagtcaggtt				
2821		acagaccaac				
2881		gggtaagatc				
2941 3001	-	caaaagcaaa gttaagcaca	-	-		_
3061				_		
3121		taaatagctg ctggaggaca				
3121		tcataagtgg				_
3241		ctgggacggg				
3301		agctagatag				
3361		aataacttat				
3421	-	aagaaataat	_	_		
3481		ttqtatacat				
3541	_	caataaaaaa		_		
3601		gaatatgtga				
3661		caattctcta				
				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, - , - , - , - , - , 9 9	

FIGURE 2-B

```
3721
       caattaggaa gtcagaacgg cattatcttt taccttttta ttctgacttg ctttaggctt
3781
       ggataaattt tttccttttt tatggaggag aaacaatggt gaagactcaa tgggacactc
3841
       ataaagagaa gtgtggacct tttcagtata ccgttggaaa tcttcaacct ccacatctct
3901
       atccaccctq tqtttqtaac agaggaaaaa ataaatatta aaaatattgt tcagaattac
3961
       atgatgaata ttatggaagt Saaagagctt tggcaattaa aatgtgtgtg tgtgtgtgca
4021
       tgtgtgtgtg tgtgtatgtg tgatgggtcc ttacccatca accactctta accagaaccc
4081
       tttaaattaa cattcaacct gttaataact atgtgcctgg catcacatat ttataataat
4141
       gaatatettt teeeteaaca caetetggat gattggaact geetetgttt ettaatetat
4201
       attaaattcc tcccttqctt qttcttqtac tcaaqqaacc cctattqtct ttqttaaqqa
       cctagattaa tagctttctt taaaatcatg cattaaatta agagttttgt aaacctctgg
4261
4321
       gtatgttact ctgtcattaa tgataagtac aaaaataatt gcatctaata tttatagctt
4381
       gctgtatgcc agacactgta caagttgctt tatgtgcatt atcttctcat ttacccttca
4441
       tgacaaacct accaagtagg caccattatt atctgcattt tcaggtgaag aaatgaaggc
4501
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4561
       tgacagtttc tcaagcacat aaaagctttt aattactatc ccctaatgcc tcagatacat
4621
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4681
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       aaattagcat actgagcact gattggtgag ccaccgaagt aaaacttctt ttcacttgct tgtgtctgtt ctattttccc tttggtagga ttcttactcc caactctgct tttatctact
4741
4801
       atcaqttcat atctqcaaaa qaaaaaqqct tctttacata ccacaqaqct aqcattttac
4861
4921
       cttgacccac tctaggttgg ataagcaggt tttctcatga aattgaaatg gaacatgtgg
4981
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5041
       atttctatat gcaaaaaaga tcctccaaac caagattgga atttaaaccc gtaaggcaag
5101
       aaattcaqat qactaqtcat caqcattatt tttqtqtqtq tqtqtqtq tqtqtqtq
5161
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5221
       cattttcatg gcaaagcaca ttagattatt ttgatcctta ctggaagtgg ggcccagaaa
5281
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5341
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5401
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5461
5521
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5581
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5641
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5701
       agaaaagtta taggacagcc tattattcat agtggttttt gacataatca tgtcccacaa
5761
       atagacatgg tggaaagaat atgaagtgag gagctatacc ttgtgggtga gacagagcta
5821
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5881
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5941
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6001
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6061
       tttctataaa taacaaccaa qaatacctta ttqcttqtac tqqtattqct tataaaatta
6121
       gacacatttc agtagaaaaa tgtatctcct atatttccaa ctgaaaattt ttgatgactt
6181
       tgttatgctg ggagttgtca acccagtctc agttactttc ctactttcaa tctcactttt
6241
       aatcccttcg aatagatgat atttgggtct ccttggggat gtagctagat gactaggcaa
6301
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6361
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       tatttggcaa gggttaatct tgcttctctt tccttatatg ggcaccaact tcttaagtct
6421
6481
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6541
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6601
       ctgattccaa ttaaattgga tataaatgtg tcagatgcag gtaatatata tgaaaagtga
6661
       aagctgcttt cagaagttat gtgatgacct ggcacatcag tgtatatatt gatgatgacc
6721
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6781
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6841
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6901
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6961
       tagcgaccgc ttcacaaaat aatgttttta aatgtataaa acaaaacata taataataca
7021
       aaggaaacca atcatactga aatacagttt tcaaaatatt aaaataatct gtgatattat
7081
       tataactttt ttattaaggc attaaagaat aagattccat agcagaccta ataacattag
7141
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7201
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7261
       gttgcctaga gtcataatca aagaaaatga tcaatttcag tgagagaaaa taaagatgta
7321
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7381
       gtctatgaat tccaggttag gaacttctga tatacaatac atagaatatt ttataaagtg
7441
       tttgaaatga ggcattctgt gtgtctacgt gtgagtcaaa attaatctga atagaaaatc
7501
       acttctaaca tgcattacaa attatttta ataggcaaaa caattatcac aaagaagttt
```

FIGURE 2-C

```
7561
       cctcagagaa aaacaaacac ttacccctga agcataatag aatagtaacc catttggttg
7621
       taatgttcgg aaattaaaac ctccttcaaa gccatcaaag aaagatattt tctgaattga
7681
       agcaatgaag ctctgtccat tgaaatatgc tctgcgagat atctgtgtgc cagaacaagt
7741
       qqaqataqtq tttttqaqaa ttatcaaatq cttaaaacta tcaatqtttc acatacqqaa
7801
       qqccttqcct qttaRtttct acqtaaataq tttattttcc cacttctqqt ctatqttqqa
7861
       attcaggcat acacYaggag ctcctctgag agatggggtt tcatcttctc cactgactcc
7921
       aacctgagtg aacaatgatg ctagcacacc ctctctgggt gttagatgcc ccacccatgg
       aaaactgaag caaacgaaca agtcacagag gaaccccatg cacaagagcc cttctagctt
7981
8041
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8101
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8161
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8221
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8281
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8341
       actgatacag ccatgatgat gatgttaccc tgcatatgta ggctatggaa tttgcattta
8401
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8461
       acacagcaat qtctaatctt tqcctataga aqagttttqt tctacqtcaa qccaatttct
8521
       tccttacagt tttcaaaatg ctctaactta cattatctca ttttatcttt ataacaattc
8581
       agtgaaatag atggagatgc tatgatttcc ctttagcaga cgattattag gttgaatcat
8641
       aggaactaac atgttacaca gaaatataat caattcttag taatttcaca gggtttaacg
8701
       taatgaaact aagaaatgaa actaagaaat aaattattct cttatgtcac aagtgatgtt
8761
       aggatttqaa cacaggtctt cagactttta ttaatccacg tcattaatga atccattttg
8821
       gcattatttc caacacatct gtaatcaaca aagtttaggg gagtgtctta atgtttcatt
8881
       atacataata cacaaccctt tggataacct taaaaatttg tgtagctcag atgctattgg
8941
       agagttcaaa atgggtttaa ggctaaagca aaagtaaatg gacaaatgct gttttgtctt
9001
       cacacaatac acatgttcca ccgttcctat tattgatgag aaatactgca ttagatcatg
9061
       ttctaagagt aatacaataa ttgaagaaat ctgtgattac atctatgcga tgctaatttc
9121
       aggaggtcct gaggactgac tgcagagggc ctgaaggtac atgaatgtgt gtacctgtgc
9181
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       gatgttgcca gcccagtaca ttgctaggaa caaacagcta cttaacaaaa agccttacct
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9301
       ggattgtaag atttctggag gagctcctcc aatgtatata tctgtaaaag gtattttcat
9361
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9421
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9481
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9541
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9601
       cagacttgaa aactcttgct tctacaagca gcagttcaca ctttctggga aaggaggtct
9661
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9781
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9901
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9961
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10021
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10081
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10141
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10261
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10321
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10381
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       tgtgctagta ttttctaaat tctggataag tggtttaaaa ggaaattctg tatttactta
10501
10561
       tatgtattct tgttaaattt ggtggggctc aaaggataag caaaaaaagg ctgtgtatct
       acactetgge teatteaaca aatgtataga agtateetgt aggaatacca attgagatat
10621
10681
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10741
       ttaaattgga acatcaacag gaaaaataca tccaWtgttt taaagYaaat gttttcctag
10801
       ggttgagaag atgagggtcc ttcagttgct ctttagatat gaaagttctc agtttattta
10861
       ccatcctgcc tgtctcattt gactgcctga ttagatcaac agatctaagt ataaagaaca
10921
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10981
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11041
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11101
       Raattgtaag ataggaacat ctgttatgcg agtagagtca gatttagctg aatttgagaa
11161
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11221
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11281
       tgggaggccg aggcaggtgg atcacttgag gccaggagtt tgagaccagc ctggccaaca
       tggcaaaacc ttatctctac taaaaataca aaaactagcc aggcgtggtg gtaggcacct
11341
```

FIGURE 2-D

```
11401
       qtaatcccaq ctactcaqqq qqctqaqqca aqaqaatcqc ttqaacccqq qaqqtqqaaq
11461
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11521
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11581
       atacataaaa gttaatattt atacacagtg taaaaattct tctgttttca ttctactttc
11641
       tgaactaatg gatgaagttt taagtctaca ttattgcctt ttaagaaaaat cttgaaaata
11701
       gagtatagta taccatgttt attcaactgc cttgtcttta ggaaactttt aaaaattata
11761
       acaggccaac agatgtgtct gcatttattt taggtgaaaa ttagtaaaat taaaaaaataa
11821
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       aaggccattg ctgtattgtt ttgaaacact ggatttatgt aaataaatat agaattatta
11881
11941
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12001
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12061
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12121
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12181
       tatttatact aatttaaaaa aacctgaaat agagaagaaa atatttcaac atccatttat
12241
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12361
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12421
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12481
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12541
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12601
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12661
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12901
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12961
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13021
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13141
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13261
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13681
13741
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13801
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13861
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13921
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13981
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14041
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14101
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14161
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14221
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14281
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14341
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14401
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       cttgttctat ctgctgctct tgcatgaata tccaagtctt tagtactctt aactgtctct
14581
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14641
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14701
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14761
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14821
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14881
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14941
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15061
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15121
       ttcttcgacc tttcctttat cccccttcat cagatttcat actctctccg aagtctcacc
15181
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```

FIGURE 2-E

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gaaaccacca ctgcaaagct gaagattaga tctaaactgt ggtgacacca caagctacgg
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15361
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15421
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15481
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15541
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15601
       ggaaggcact ccaccaacat aaaacactgt gtcctcaggg tccaggtcca gcagagagtc
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15661
15721
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15781
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15841
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15901
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15961
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16021
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16261
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16321
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16381
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16441
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16501
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16561
       tgttggctgc caggaatggg ctaattttgt gaggctaacc caggaatata atacagcctg
16621
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16681
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16741
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16801
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16861
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16921
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17221
       tetteacete catacetgta gttatttace acateeteee etagttgaag agaagaetta
17281
       gggcagattg tgacacagta gtttaaagtg gggtgaaaga aagcaaaaaa aaagtggtga
17341
       ctaagtagat ccaagaatga ggataaatat gaattccacc atgaacagta tacttggttt
17401
       gggtgaacta aacaacttgc tcaagttgtc tggtcagtat acaattcaca aggctcatac
17461
       aatttataca aaactaattg tttgggagaa gtagaactaa ttttggttac taatacagct
17521
       gggactttgt ccctagggtc ctcataaaag ggacatgggg tgaggctgtg agcaacatcc
       ttgcccttgt ctacacagtt gggaggggtc tggactagct ttgtagtctc agaccaggtg
17581
17641
       ggctctacca cttcctaact atgtaacctt gagcaagtca cttaaccttc agtttcctca
17701
       tctgtgaaat gaggataata aatttgttgt gagcatgaaa tacgataact ataaagtgct
17761
       ttccagtgcc tggtcctacc attataataa ctgtaataat gagttcataa ggtgcctctt
17821
       ataatggctc acagaaaggc atcacaacaa agcacaattc agtaagtgca tttctaagag
17881
       gcccaatatg atatgctgag ctggtctgat tcagggataa tttttagagt atttacaagt
17941
       gtatggattg tgtatactta tgtcatttat ctgaatcttt ccaaatgatt aggcatcttt
       atattaattt attaatattg atttggctaa tgtgggtggt cagtgagctc aaggctctat
18001
18061
       ttccaaatga ctggagtgca gctgtcctat gttatcagtt gagtaaaaac taatactttt
18121
       ttttttttt ttttttgaga cacagtctca ctgtcaccca ggccggagtg cagtagcaca
18181
       atgtcagctc actgcaacct ccatctccca ggttcaaaca atgctcgtgc ctcagcctcc
18241
       tgagtaactg ggactacagg tgtgcgccac cacgcccagc caatttttgt attttggtag
       agacagggtt ttgccatgtt ggccaggctg gtctcaaact cctggactca agggatctgc
18301
18361
       ccaccttggc ctcccaaagt gctgagatta caggcatgag ccaccqcacc cggccaagac
18421
       caatacatct taataaacaa gMagtgtggg ggattaaagt cttacattaa taagtgagag
18481
       tctgagaata gtgcatgtct gcatgaaaag catcccactt gggggcactg agtgagctcc
18541
       caactcccaa aggtggggct aagtctgtct ttagcaaatg gtcttaggtg attaaggtcc
18601
       caaagtcata ctctttatag aaataatatt acaagaaagc actcataaaa acctagcttt
18661
       tagaatgcca tttcttgatg tacctttaga taaacctttt ttgaaaatgt tcactggggc
18721
       atctaaataa ggtaatttgt cacaagggac catttatcat catttaaaag tcaggtctat
18781
       ttaccaagaa taatcttcta cattacgaaa tagttgattt ctaactcttc tttctgtcag
18841
       taattaggac cagtagtctg ctcaggccga ttcttaactg agaaaataaa accatatact
18901
       ttggtcataa aaagtgagtc tggtctatga atcaattaaa aaaattcaag aggtccaaga
18961
       acaagctcca ctttgccaca ttgaaaagta attgctatgt caggagatgt tcctacaaat
19021
       gccagcccta gttatcttct gctaagttgc ttctatatgt gtcccaaaac acatatagtg
```

FIGURE 2-F

19081	tgtttgttga	gtttattcct	cttagccagt	atgtgattcc	tcagttaacc	ctgcgggtgg
19141	tcagtaaaag	cttctgcata	atttgtgttg	taccagataa	tttcttgaag	gggtaggaca
		-		-		222
19201			tatggtaatt	-		
19261	atataaqaac	gaattgaggc	ttttattgag	gctttacttc	ttttgctata	ttagctttat
19321	_		tttttaaacc	-	_	-
					_	
19381	taaagaacat	acaggtactg	agccctttct	ctacagagtc	tgatctattg	ctttcaggtt
19441	gggaccagga	attggtttcg	ttttcagtgt	tcctcacqtq	tttctaatta	gcaaatgggg
19501			gaatacagca			
19561	cagttggagc	tcagcttcgt	gttattatta	ccgctgactg	actgatgagt	cttttcatca
19621	attaccttac	tagcaacact	tctggtctga	gcaatgaggt	ctcggatcct	ctagatacta
19681						
			tcgcttctgc	_		
19741	gggacaacct	cggtcagatt	tcttactgca	gttaataaaa	attaatcatt	taagaaaata
19801	actcaatatt	atatttcaag	aatcagatgt	agacaataaa	catggattac	atatootaga
		_	, ,	-		,,,,,
19861		-	atcctgcaaa	_		
19921	tgtgctttga	tcagggaata	ggttgaggca	gacatctggg	ccagacggac	tcagctagtt
19981	tagggcacag	gtgcatactc	catttgttat	ataacctqtt	tatataaact	catacttqqc
			_	-		
20041	_		aaatgtataa			
20101	tgctcttgcg	cccagagaaa	gagagaatgc	caaggccgcc	tgtcttgcag	acggacagag
20161	ggagagccag	ggctcaacat	ggctcaggcg	tactaatacc	сааададада	gtaacgctac
20221						
			cagttgcctt			
20281	cttgtRcctg	gaaagagaga	aagttaagct	gctaaccctg	aaggcaagag	caagccgact
20341	gctcagctgt	atataggaage	agccagagca	agcagccgag	acagagcagg	cagtgtgaga
20401			gctgaacaga			
					-	-
20461	tgttctttca	gccacccacc	cactccactc	agacctcagt	atgggctcga	acctgacccc
20521	gagcatgaca	tttggcatag	tcgtggacct	aacaaagccc	aaagcacagt	ttatttctat
20581			ttactgatct	_		_
		-	-	-		
20641	aagggcaggg	accacggtat	atatacaaat	gttcctttaa	ccatatagca	caggttctgc
20701	ttgcatttct	aatataactg	atataacagg	tcaaqaqqaa	tactqqqaaa	aaaggtagga
20761	_	_	tccttttcta			
				_	_	
20821	atagaaaaga	gcgcaagtca	gatgggcttg	atggctcaca	cctgtaatcc	cagaactttg
20881	ggaggccaag	gctggtggat	cacctgaggt	caggaggttg	agaccagcct	ggccaacatg
20941	gcaaaacccc	atctctacta	aaaatgcaaa	aattatccag	gtatggtggt	acacacctat
	-		_	_		
21001	-		ctgaggcggg			
21061	gcaatgggcc	aagatcgcac	cactgcactc	cagccggggc	gacagagcga	gactatgtct
21121	caaaaaaaaa	aaagcaccag	tcataagaat	acagettgat	gagagaaact	caaaacaaaq
21181			agagtttcat			_
21241	cccagacaag	cagcagcagc	atcaccagga	acttgtcaga	aatgcaagtt	cttggccctg
21301	tcccgagccc	actgaatcag	cagttcctgg	agtgggatcc	agcagtctgt	ttaacaaggc
21361			cactagtatt			
21421			aagggcaggg			
21481	agagcaagcg	tcttcctaga	gaaaaactaa	actcacattc	aggagactat	gtcagtgcag
21541	atcaaggaaa	catcccttct	ctgtacttag	gacacacgat	gtttctccag	Ygcaaggaat
			_		_	
21601			caactatcag			
21661	atttattgtt	tggatcactg	acaacgacat	ttattttaga	gtatactagt	ctttaaaaac
21721	tagagataat	atacttaatq	aattatgtta	gatattgatt	atggaaatgt	ttataagaca
21781			atcaattctc			
21841	tacttataaa	gtgtcttaca	ttatggtatc	ctctttcatt	tcctttgttt	tgaaccacaa
21901	aatgctattt	gagaaaagca	cagtaaacaa	tttcaatttt	ttgaaacttc	tggatgctta
21961			tggtaaaaaa			
22021			ataaatgtaa	-		
22081	aagacaaaat	tttaaaagca	cttccttgag	tggttacatg	gaagaaatga	atatatactt
22141	aaaanatcat	tataaaaaaa	ctattttact	attataggaa	tagatattta	taaattooaa
22201	_		catatatgga	-		-
22261	gaaggtagta	ttgtWtgcaa	aaccatattg	gagaacaaaa	agttctagtc	atgatttgtc
22321	atgatatica	cagacattee	tgtttaagaa	gttatgaagg	gattggataa	aaatgtgaga
22381	-	-	-			
			caagtactgc			
22441	tagacatgaa	aatatttcat	tttcatttct	atagaactgt	atattcaagt	tggccaacac
22501			ggagttatgt			
22561			aaaagcaatg			
		-				-
22621	tttttttct	aaaagctaag	cagtattttg	ttaagattat	ttacccaaca	tttgattaac
22681	cttgttccct	aaaagataag	tcttacgttg	atacaattqc	taccataatt	tcacatagaa
22741	_		atccatctag	-		-
22801			gatagataga			
22861	ctaagctaac	ttctataatt	ttcgaatcca	aaacccaaat	gaagaaaact	gttttttgac
						_

FIGURE 2-G

```
22921
       aaaaqatgta taqaqtttaa tqqccaattc cttaattaqa ttcaaattqt qaaatttcta
22981
       agtgatacct gcatccctag cagagttcac tgcagtgttg taagcagaag agtcaaaatg
23041
       ttgaagattc tgtgaccagt tggttagatt gttggccatg ggggcagtgg cctgctgcac
23101
       ctccatcgtc gtcctgttgg cttcctcggt gatcagtcta gactgcccca ggcgctgctg
23161
       ggcatcccct ttacacagag cacagggtca ttcactttgc agagaagccg gatatttgtt
23221
       ggggaacatt aacaccctt taacccttga atgaaacaga tctcacattt tgggctctta
23281
       agcaaaagta agatttttgg ataaccatgt ggctcaccga aaacatttcc aaattaagag
23341
       gtaaatttaa aaagaagagt aattgtattt cctataacct ggtaagaaag ccatagaaaa
23401
       tgcacatgag attttaactc ataagaggtt tgtgtctgaa attaattgca aatatcactg
23461
       tcttttatga aaaagtaggc ttgtggaaca cttctgccat aaaaatgatt ctatagaagt
23521
       taatcaataa agaaagatat ttttttaata gaaaaaaagc aaatttcaaa gagttttagt
23581
       agtgaattcc catttttgtt aaaaattaca tctttaaaat aaccatgatg taaatttaca
       acaaaaaatt ttgtctaggg gatgggatta taggtgattt tcttctttt ttcttatctg
23641
23701
       cattttctaa tatttctatg agaattattt attattttta taaaaataat tataattcat
23761
       ttaggtgact ttataacttc aaattttata aatttgaagt tgtgccctaa tttggttatt
23821
       23881
       tagaactgta aaacaattat aaatttgaag ttataccatc acctaagtga attataatta
23941
       24001
       gtgaggatat atttcattta gcctcacata ttctggattc tgataaatgc tagtttcaat
24061
       cctgaatctg cttcttactg gctgtgcctg ttgcagcaag ttccctaacc ttcatgaacc
24121
       tcagggttca tatcagcctg aaggcagtag tggtacttat ccccatgaca taaagtatta
24181
       atatggttgg ctgtgttccc acccaaatct catcttgaat tgtaatcttc cataatcccc
24241
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24301
       tattcttgtg atagtgagtt ctcatgagat ctcgtggttt tataagtgtc tggcatttcc
24361
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24421
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24481
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24541
       ctatgttgaa cacttaggac aatgcccagc tcacactaag catcaataaa cagtcattct
24601
       gatgacggtg atgatgaggc ttctccatga aggaccactc tcctggccag agctttggtg
24661
       cactgtagca ctgtagctag gatttgctca ttctagtaaa acacccatat gctgcactag
24721
       ttttttaact ttcactgcgc gaaggaaggc acatctgctt ccaatcacat ctatctaaga
24781
       taccactgca gtcccagatt aagcaaaacg tgtgcttttg tttctctatt tgggcttgtt
24841
       ggtctccctg gtttctattt ggtctctggg cctgttgctt atatggtaag aatgacttga
24901
       catgtaacag agggaagctg tttacagctg ggccaaagaa atccaataac caaattaggg
24961
       catattgtta tgaggaagga tgttcataag aaagccatta ccaaacacta taaacagcat
25021
       gatcccatta aaagacacac acacacaca acacacaca acacacagac acacacagac
25081
       acacacaca agaggcaatg ctggaaaaaa aggctctcaa atctaaaggt cacctctacg
25141
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25201
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25261
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25321
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25381
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25441
       gccactgctt catcactgcc tgtggaagag cagcagaaag aagtactagt ggagccaaga
25501
       tgcctcgaaa aggattccat ttcaacaagg aaacttctca tttgtacgat gcagtcatct
25561
       gcagtatttg cagtattctg aatactctga acatagatca acaattctgg aaagtagcat
25621
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25681
       tgccatcatg gttactttct ttgattgaaa catatagccc tgccatgact aataacacca
25741
       agcagcacaa ttgttaaaga gctgaaaaga aaaaaatctc tctctcta catatatgtg
25801
       ataacgactg gttataaaaa taatccttgt tttcttattt gtttcaataa aattttaatt
25861
       gcaatataac atacatctag aaaaaggcac cctttataaa tgcacagctt gacaaaaatg
25921
       ttcacaaaat gaacacaaaa cataaccggc atccaagtca agaaaataga aacttattac
25981
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26041
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26101
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26161
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26221
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26281
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26341
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26401
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26461
       tgcaaacact gttattttta aaagttaatt tcccaatgtc gtatgtaaaa ttaaatcgga
26521
       tttttacaca ttgaattggt aatgtagggt gtccttgtat tgtttctaat attagtggaa
26581
       aagcattcaa tatttccatt ttaattgctg aatattattt tatttttcag attatggaag
26641
       tttccttcta ttctcagttt gccgaaagtc ttttttaaaa gtcaaaaatc ttttttaaaa
       gtcaagtttg ttaaataatt tttctgcatg tagtgagatg atcatatgaa tttctcctat
26701
```

FIGURE 2-H

```
atcctataaa tgtgacaaat tacaattgat tttttaaatg ttaaactatt cttgaaatcc
26761
26821
       26881
       gctaatatat tgattagaat ttttgcatct ctttttgtga gagaatttgg cttataattt
       tcctttttaa taatatcctt atgtgattca agtaaccaag ttttgctggc ttcataaaac
26941
27001
       aagttccaga gtgctttctt gttttctatt ttctagaaga gctcgtataa aagtggtgtt
27061
       atttcttctt taaatgttta agaattcact ggggcagcca tctgagcctt gagatttctt
27121
       tgtgggtagg gatcgattag tggttaaatt tattatacat atgtatgtac atacagttct
27181
       atcagatttt gtatttgcat cagttttgag agtcttttgc ttataaaatt gttcttgaaa
27241
       gcacacttgt ggcacagtca ctagactggt tatctttgag caaatcccaa cagatcatga
27301
       tgtaattacc tcatcatctg aactaaagga tcaactttgc cagtaattct tcatttctgt
27361
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27421
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27481
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27541
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27601
       gcacttcttt catattttct ctgggtagtg tgaagaattt gcattgcacc ctgcctcctt
27661
       cctcttttct aatttcaatt cccaaacatt ataatacaaa caatgtttta gctcttattt
27721
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27781
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27841
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27901
       cataaatact tttcattttg caaatgagtt aagtagaaga ttcatttaaa tagcagcttc
27961
       ctgagattat attgactatc aactatttga tatataRtga aaaqqaaatt tgggaaataa
28021
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28081
       attcagtaga 'tgactatggt ttaatttgaa aacctgaatg tacatcacaa atgtgtgtat
28141
       tatcaaagga agacagtcct ataaagttct aagccacaca gtactaactc cctgttgttg
28201
       ttccttttgc aaataaatac agaaagggat ttggccaaat gagatcatga aataggtgaa
28261
       caggtctgca aaatattcaa acaggctaat gcagagagat ttatcagaca taaaatatgg
28321
       aactttgaag ggatgtgggt agggatcgat taatggttaa atttaaaata gaaaagttgc
28381
       ttttatgagg ttcaataact caataatgac aagactgaga gaatatatta caagttatca
       aaaagaataa aatatttaag tcactgtgtc atgaagactg acacattctg atcttcacaa
28441
28501
       gaaacaaaag caatacatag atatagcaac atttatttta aaatatttta ctgttaatat
       tctaattctt cactactgat attctaatcc atagagtatg ttcaggatag acttacataa
28561
28621
       taaattaatt agacatataa taattagact agagaaacaa tgacactttt tattgccttt
28681
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28741
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       gcatgattaa atgagattaa ttacttcaac aaaattgggt gaggttttta gtttcaaact
28801
28861
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29101
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29161
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29221
29281
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29341
       tagttttagt gttaagtgta ttttaggaca tttttcccct aaaaattggt atttatggta
29401
       agtttctatt aatcagccta tttgattagc aggaatagcc acagtatgtg agatagctat
29461
       gtgtttccat gtagtttact acatagcatt tttttttca atcacaattt aaagtatcaa
29521
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29581
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29641
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29701
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29761
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29821
29881
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29941
       ggaagtaatg cctttggcat tttcaaggta atgtttttt gggaaagatt cagtgaacct
30001
       agaacaaagc cctggccaag gccccaccaa agtgcttgcc acatagaagc cacacaataa
30061
       ataattttga gttgaaaaaa atataaatga atgcataaag tatcttctct atcagcaaga
30121
       actaatttta aatacatatt tttttttca gggactttgg ctaaaaaaaat aaactgtcaa
30181
       aggaactggc atttgctgac tggactacag cacatctcga agaatctgca gactgaaacc
30241
       ttcaaggcat tcatgaaatg gtcttccctt agttcccctg ccttttccac tctttctgcc
30301
       atttggattt cacactggaa gttcaagaga tgacatcaga aaacagaaaa gccagtggga
30361
       aaggcaaggt ataaagaact ttcagggaat actcacatca taaattcggt cagtggtgtt
30421
       caaagcaaat tctgctgttt cattggcttc actaacataa ttaacaatat tttcatagac
30481
       atttgatgca tccaaagcct tctgtaccag cccgttcata tctgaactgt gcaacttcct
30541
       gttaataaac aaacattgtt atttctcctt cttaccttct tggggaatgg ggccatgttt
```

FIGURE 2-I

```
30601
       aatgcttgct ttttaaatac ttctaggatc acagatgctt ccttcctgtt attcaaagtc
30661
       acctagtgtg gcaaggtttt cttgagggtc acactcctc tgcattcttc tgtctttgct
30721
       gaacagcatt ttggttctct gacagctgcc tgtctggcag tagcagcagg aaaagggaat
30781
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30841
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30961
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31141
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31201
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31261
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31321
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31381
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31441
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31501
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31681
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31741
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31801
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32161
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32221
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32581
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32701
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       tacttttcag ttaacattaa ttgagtgtcc aagaggtgtg tgattctatt ctaggtgctg
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33721
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34321
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FIGURE 2-J

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34561	atgtctcctt	tatatgcagg	gaggagagtg	agtgaaactc	cagacctctc	tacccctttc
	-				-	
34621	ctcactctac	tcctgtgaga	ggggagtggt	tgattttgtg	ggtaaatttg	ggaagaataa
34681	ctctataggc	tctgctcaac	tocaccette	tttatcctaa	gaggaaggtg	ссадсадааа
34741	gcctgagttt	tcctgtgttc	ctccatgtta	aaactattct	gggcagaacc	cccatctaag
34801	ccttacqqtq	ttgcctgtct	adatagacac	agctgcttaa	tactgggact	gaatgtcagc
			,,,,,,			
34861	taccccactt	ggctaagaga	cctaaagcca	tgcctgctgc	ttagctgctt	cagaaataag
34921	gcaacctcct	tggtctctgt	atttactatt	ttatttatgt	ttccacctgt	ttagaacttg
34981	ggttctggaa	agggtcacta	tttattggtt	aactccctca	gagactccaa	aaccaatgaa
35041	caddtatttc	cccagctttt	tacaaccaac	ccccaaccct	teccercasa	ctctatagat
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				-	_	-
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35461		_	-			
	-	gttggccact	-			
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35641	tttgagtatt	ctaatccatt	ctccactgtc	ttgcaggaaa	ggtaatcttc	ctattaagaa
35701	aatctgacca	tgttatttcc	cttctcacaa	tcagccagtt	actttacaga	aatgagtgga
	_	-	_			
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35821	tracccccaa	cctgctatat	cccatggtct	aatcttgacc	aactggttgt	tattttaata
35881	ctccacaatt	ttttctggtc	tettacetet	gcaaatattt	tccctttctg	gaataatttt
35941	cctttatttt	ctgtctaatc	tacctggaaa	gctctactcc	tcctttcaaa	ttcagctcaa
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36061	totttttatt	attcattcat	gtgtcaaatg	attotaataa	ttttaagtga	ttatttaact
	-			_		
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36241						_
		ttggttggtc				
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36481	aaacaagcaa	acaagctaat	ttcagggagt	aaaagatatt	ttqaataaca	tatgacaggt
	_	-		_	-	
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36781		gcttgtttct				
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36961	gtgacttgga	ccaaagagca	gcagtagaga	caaggaaagt	ggtcagaaat	caagattcaa
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37321	aaaaaataaa	taaaataaaa	tagaagaaa	gaaatcaaga	ttcattttac	agataaggag
37381		gcagtagtga				
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37501		aatacatcat				
37561	acttgaaaat	gtcaagttag	cactcggata	taggagtttg	gaactccqtq	gaggtgtcat
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		ataattgtgt			-	
37681	aatgagatca	gctagggaga	gagtataggt	agaaaagaag	gcctaggacc	aagcacaqaq
37741		tccagagcag				
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37801	tttttttt	tttttttt	tgagacaggg	tctcaccttg	tcacccaggc	tggagtgcag
37861		acggctcact				
37921	agcctcctga	gcagctggga	ctgtaggcat	gcaccaccac	gcctagctat	ttaaaaaaaa
37981	attttcttt	ttgtagagag	agagteteac	tatgtttccc	aggetagtet	tgaactcctg
38041		ctttccccca				
38101	ctgcaccaaa	ccaaagcctg	ttgagctgag	aatatatctt	acatatttaa	acggttgtaa
38161		aaaacaaaca				
			-	_		
38221	tgcagagcct	aaaatattga	ccacttagag	ggtgtgcaga	ggcgaggcta	gcaaaggggg

FIGURE 2-K

38281	ctgggaagaa	accgctagcc	agggtagagg	ccatgagcgg	taccagagca	gccaggacaa
38341	gggcgccacc	tggtgtttag	aggagggagg	gctgagaaag	cccgggagag	acaggcgggt
38401			acagtctcag			
38461			gagtctggga			
38521	-		gcagaatggt			
38581		tttttacagg			taaaagatag	
38641	agcacgtttg	tacgctgatg	gtaatgatta	agtaaagaat	gagaacggga	tgattcagaa
38701	gaaagggcat	aacttgagga	gtgaaaccct	gcaacctgtt	ttcaaggccg	ggcaggagaa
38761			gaggcagagg			
38821			ggagttctct			
				_		
38881			aactgatagc			
38941			ggtgctgggg			
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39061	tgagctgctt	aaggagggaa	gaaaggacat	gagaggggta	cggtaaaaaa	ggcagggagg
39121	tctccatqtq	gccagagaat	tactggagtg	ggcattctag	aataagtgag	ataggagatg
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39241						
			ggtgggaaaa			
39301			tggaggtcag			
39361			tgggagtcag			
39421	tagtcaacgg	acaatcaaat	gaccttaaag	tgatatcttt	cgaaaggtaa	taaaatgaac
39481	taagagtaat	ttcatgatag	ttcagttcac	tgcattttat	tggaaatttt	ctacttttac
39541	aaaatgtgac	ttttattgat	tttgaatgcc	agatttatca	aacacaactt	tatgagtgaa
39601		_	gagcagcatt	_		
39661			ctgtttctgc			
39721	_		-			
			ggacttgaaa			
39781			gtaatttaaa			
39841			aacattcagt			
39901	ttagatatga	atttattatt	attctgtgac	actgagctgc	tgttgtaacc	tgctggaaat
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40681	-	_	cttgatgagt			
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40981			catcttaatg			
41041			gaacccatct			
41101						
			atcacatttg			
41161			atccatcaag			
41221		_	ctgggagtta	_	-	
41281	tattaaaata	tgtaaaagaa	gggagttgaa	aaaaggttgg	tattatttac	ctctcacaga
41341	actgttttcc	ttttacagtg	ttctttaccc	cttctgtaag	ttctctctqq	gtgactgcgg
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41461			gtagatgaaa			
41521		_	tagacagaaa	_		_
41581			tcaacttgaa			
43643		ann++a+ana	tattcagcat	-	-	-
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	aatagaaaaa	gttccacggt	caacaacaac taaagcttgg			
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FIGURE 2-L

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42241	caacaacaaa	cccacttaag	tttgttttct	aaaacacaga	gtcaaattcc	agtaaggtca
42301	gatocattoa	aatotattto	teataggaaa	gactataaat	222222++44	2+++222++
42361	ttattaaaaa	gaattaaaat	ttcatgatat	tttgcaaaag	tatqcaaaaq	aatggtgaaa
42421		_	-	-	-	
42421	gtagtgttta	gtaatttaga	agtccaagtt	aatatgaaat	aagagtattt	gtgatcatga
42481	agaaccagtg	tacataaatc	aaatctgtat	tacttgacag	tactccaage	atttgtccat
42541	ccatctgttc	atcaatagat	gtaacaaatg	caagttattg	tgtttggtgc	taggaagata
42601				ggatgctcac		
42661	gatgcatacc	atcacacaca	cacacacaca	cacacacaca	cacacacaca	cacacacaca
42721	cacacagagt	tatocattca	acaatcaaga	gtgactccac	caddededat	aactcacacc
42781	tgtaatccca	gcactttggg	aggccgaggc	aggcagatca	caaggtcagg	agatggagac
42841				atacaaaaaa		
-						
42901	gtgcctgtag	tcccagctac	tcaggaggct	gagacaggag	aatggcacga	acccgggagg
42961	cadadettae	agtgagetga	gategegeea	ctqcactcca	acctagacaa	cadadcdada
43021	ctccgtctca	aaaaaaaaa	aaaaaggagt	gactcctaga	caggaacata	gaagaatata
43081	tacttaatat	gatgaagget	aataataatt	ccagtgatac	aaccaataac	tacaccaata
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43201				gcaatggcac		
43261	gctgcctccc	ggactcaagc	aattctcctg	tctcagcctc	ccaagtagct	ggtattacag
43321	atacccacca	ccatacccaa	ctaatttta	tatttttagt	ananacann	tttcaccata
43381	ttgactgggc	tgatcttgaa	ctcctgacct	caggtgatcc	acctgccttg	gcctcccaaa
43441				ccagcattct		
43501	ctacctgaac	ttgcctgtca	atcttataca	tgcgaacaag	tgcacatttt	tctcatggca
43561				tgtctgtgtg		
43621	ttccatagtt	ttcactgaat	tctcaaaagg	atataagact	gcaggaacca	ctggactgga
43681				acacttaacc		
43741	agtactcatg	gatgagagag	atgagcaaag	gagacaccat	gagcaaaggc	aataagtaga
43801				cagagtttgt		
43861	tggaacagta	ggtggactca	gatcatgggt	ggctgaggaa	tttacctttc	ttaagtagga
43921				tacatagttt		
43981	tgaaatcgaa	tctggcagta	atctcaaggg	gagagaagct	gggaccctag	gcaggggca
44041	gaccaaaata	tecacaagta	202020222	gaatggagaa	atcactagag	220002000
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44521				taaaatgagc		
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44641	ttaaaagcta	ttctqqcatt	cattcacttt	tagaactgaa	atctcttcat	atagggaaga
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44761	accaaccacc	agcaaatcgg	ctaatttata	cctaagcaga	tactttggtt	ctcagttcat
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44821	tgactgtgtg	CTCCCCTTCC	tgattataaa	atttacaaag	gacttttgga	ggtaagatct
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44941				tggctgagat		
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						900000000
45061	cagcaataaa	cattactccc	tgtggctaag	ggcacagctg	tggtctggat	gggatctcct
45121	gcaggccatt	acttaccett	gtcctaccag	gaccggtctg	ggttggcagg	tccacttctc
45181	atttcagggc	ttgcagtacg	gaacatagtt	ctgggtcttc	actggtgaac	cctgagaatt
45241	gttgcatgag	gttgcagtgt	tatttctatc	ttacttaaat	gctcttaatc	ttctttggga
45301				tatgggctta		
45361	atcacttatt	acttagcact	gaaaatgcat	cttcaataaa	cttgggcaca	atctgacaaa
45421						
		-		aaggttttca		-
45481	ctgagttgtt	actttqtqtc	agacattoto	ctaaatgctc	catgattcaa	agataaagaa
45541				gttcaatggg		
45601	atgatcacaa	ttcaqaaaca	gagetgtgca	agacatgtta	caggattgga	gtatagggta
45661	_	_		-		
				agacttaaag		
45721	tgagtagaaa	agaaaaagcg	gtttccattc	caggcaggtg	agattactgg	ttgtgtgata
45781						
				cagtaagagg		
45841	agatcagatc	agagggagtc	ctgaatgcca	cqtqaaaqaq	cataggctgt	ccacaggata
45901						
45901				cgttgcaacc		

FIGURE 2-M

```
45961
       gaaccgtgat gaaaccacac cttactatat atgtgtactt tgatattttc tattcccttg
46021
       46081
       atgaaactta ttttctaacc cgcgaaatgg ctcacaagtt gcagcgtcaa aagcactgtt
46141
       ataggtgatg aggagaaatg agaggattga taagcacatg cagttqcagt cagactgtga
46201
       ctaaggtgag ctgctctggc agggtggaga ggatgttttg gaaggacgca agaatggagg
46261
       agagagaagg ggagactgtt ttggttgaga aacaatgaaa gccagaacta gagaagttgt
       agaggaatgg aaaagaagga agagagctaa aacatgtcag atagtaaacc tgggaggaac
46321
46381
       ctgcggttga ctggatgtgg aggagggaaa gggggacact tcaagggtaa ggagagtccc
46441
       agcgactate ttaaaacagt attttgtgtt atacttttat tgtataagat aatcatgcat
46501
       tcatttagca aaaaaaaaa aaaaaagtta tcccaaccat attattctaa aaaatattgg
46561
       ctaggggttt gctcccatta gcaaacagtg gtgatgagtg taattaactt ttacggaaga
46621
       aattttacaa ggattcttag tgaggggtaa tgatggctga aaatcaggct agagagccta
46681
       gtttaagtgg cttttgccag ccacaatagt acataaccga attcgtgaat ttgctcataa
46741
       ttggtttcta tttgttcaca gtattctttt ctccctaatc ttttaaaaata tgtttgaaca
46801
       tgcatgtgtc atcctatcaa aagatggccc ctcttgatgc tggcggctgt gaatacatgc
46861
       attgcttgaa gcggacacat gaccactacc agttctcagc tttgtaggtg tgggcatgca
46921
       cgaattctgg ccccatgaga tgaccatctt tgcaagctat gatcacatct gggaatcctc
46981
       ctcaccttcc tctttgcatt tgcatggcct tggcaattag tctccttatc cctgcagctg
47041
       ctgaccagcc agactgtgag atttgcttat cgtgcctttc caaaaattat gcatacccag
47101
       aacccatggt tttgagatgc tttggccttc tagtgctctc agtataaaaa aagctatgca
47161
       ttgcttaccc acttgcaaga ataacagacc catacacatg gacacaagca tcagaactac
47221
       tgcgttctta tcaaagcaag aactagacaa ttatcctagt ttcaacttga ttttaggaac
47281
       acacaagtta gtaatttata gcaccaaaaa acacaccaat attttaaaat ataagtattt
47341
       aactatacca atattttaaa aaaatttata tcaacagccc cttcttggtg taccatcaca
47401
       ctgctgatgc tgaaatgcat tgatggtgag tgtccgctgt acctcatggt cccgctgcct
47461
       ggctgctgtg gccctgttca tgtcttcggc atccctgaca tRgttaaggg cctggtcaag
47521
       tgcttcctgg agatctgaca acttagcatt gtagtcatcc agctgctcca ggacgacagg
47581
       aaacagagtg cgggtctcat tgtgcagccg ctgccagctc tcagcctggc tcagtactgg
47641
       gaagaaatgg agataaaggc tcagtgtggc tttctcctgt tcgcttccat tcctcccagc
47701
       attttgcaaa gttgcaaaat tctcaggcca tgccttcttt agcaatggag attgaagcta
47761
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47821
       ttgggagtcc ctggataact gtcagttgaa agaagggttt gattagtttt cccacagagg
47881
       ttgtgctttt tgtgaaaacc atatcattat actatgctta ttattatcca gattattaat
47941
       aattttactg tgtaaagggg acttgggtat agtatggttt ttactattaa aaataaccaa
48001
       acttatcttg tcggtaataa ggcaaaatga tgttcatacc cactcatttt ctgtagtttc
48061
       tctaggcaac tgtttttagt tagctccact gggtcaaatc caaaccatga ttttggtgga
48121
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48181
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48241
       attagcttgt cttgttgaga ttttcttcca tcactgtaag cagaacacaa aagttcctgg
48301
       ctqaqtatag aaagtgttgg aaaatgcatt ctaggtggaa ggaggccgag tgggagatgt
48361
       gattggtccc acttctccag ggaagtcttg ttaaattcca caggaggtga caagcttgga
48421
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48481
       gcctgagatt cttctttggt tcttactgtt tctaagactt tacatatttg ccaccataat
48541
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       tagtgacagt tgtaggaaaa cgacctactg ccctttatcc ctttttgtgt cattagtccc tttgtaatct aatgaagcct tcagactgct tcttagagtg tgttctaaaa tgcatacaat
48601
48661
48721
       aaaatatata gaaattaaaa ggagactaat atatttaaaa accaaatgta atataataat
48781
       gtatatgctt ctttactaat cccttaacta acaagatcta aaggtggatc taatagttac
48841
       cataattttg agttattggt gaatttaaat agtgtcatga gatatcagca gcagctaaaa
48901
       tataatatgc aaatctgtga tttcttccat tgattgtgta gattaaacca attgtttgca
48961
       gctcttccaa tcaagagtgg agtctatctc tctactcctt gagtctgggc tggtcttgat
49021
       cagtaaaatg gatatgacat tgctgagctc caagcctagg cttaagagac cgtgtgcttt
49081
       tcattcttgc tctcttaaag ctgccgttat gtgaacaacc tggactagcc ttgttgagtt
49141
       aagaccccac atggagggag aggcccagcc ttcccggcca gccccagaca tctgagtgag
49201
       ctcaaccaat atatgtcaca tggagcagag atgagctgtc caggttgaat ccagcctgaa
49261
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49321
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       agtgtgcaat cttggctcac tgcaacctcc gcctcccagg ttcaagcgat tctcctgcct
49381
49441
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49501
       ttttagtaga gatggggttt caccacactg gccaggctgg tctcgaactc ctgaccttgt
49561
       gatccaccca ccttggcctc ccaaagtgct gggattacag gcatgagcca ccacgcccgg
49621
       cctgggcctt gttataatag caattgataa ctgatacagt gatcaagtga tagattcaat
49681
       aatactactg tgatttggtg cctacactca ttgctgaagg aaatgttaaa tttccactgg
49741
       aggctaaaag atattaaagt cattcatggt cttcacaaca tgaatgtttc tggccttgta
```

FIGURE 2-N

```
49801
       gcattcctgc cttctcaata aaatttcttt aaatgtagtt ctgggaattg gtttccttta
49861
       gtcttccttc tactgtttta tacgtttttc accaactgct atagattcct tgtggcatct
49921
       cagttgtttc tcaggggctc agaattgggc ctgaatctaa aaatcttggt tataaagtca
49981
       agttqtcctg aatqattccc tqtqqccaca tqtaqattct aaataqttct qaacactqqa
50041
       aattggttgc tttgattata tgttgcccta ggtttaatgt ctgctattgg acccacaaag
50101
       agggcaaaca tgtgctgggt cagctatgag aggaatacac ctacgttcgt aagcctcatc
50161
       tgcctcctca tccacgagct cccgttgggt gaaaaatggt tgacggcttc taatctcttc
50221
       aagcatcttc tgggccaaca ccagcttctc agagatttcc ttggggctaa gttcatgctc
50281
       ttccccataa tagaqcatct tqttqttqat ctctqaaagg aagaacatqg tqaaacaaqq
50341
       cagcagggag agatgaccag gcactagaaa tgcaagggag caagggctgt gggcaaaggg
50401
       cagggctgat cctgaaatgg aaagagagac tcattcaaaa gcagcgtgct agtgttcatg
50461
       ctgtgaatcc cagcgagcat ggaagctcat catctattcc acgaaggaga aagacacgag
       gaaaccactc ttctctgctt cccatgcggg gtcttcagaa tgggaactgg ctaatgcaaa
50521
50581
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50641
       cgttaaatat tgtaacttga tattcaaggc atccaaatct acagtctttg atcagccttt
50701
       tatataacat acttaacttg gagaaaatgc tcagagatca ctcctgtcat gggtgagatt
50761
       attaatgtgt ggagttatta attgtatttt agacaaagat ttgatcaaag ctttaagccc
50821
       aaatgagagc atattgatag ctgtccaaat gagtctttca aattatttca caggctaaat
50881
       acaaaatgag ggtttgttat aatatgatgt gagcttttgc tcattgatag ttattttttg
50941
       gcagttgctg tttgccttct agagcgtgac tactctaggt cattttcacc ccacttccat
51001
       aagtcaggtg gagaatttta gaactggagg gaccactgag gctcaaaggg attaggtgac
51061
       ctgtctaaat attagcagac tgaaatacKt ctttgaatcc ctcattccta ctacatatga
51121
       tgagaaggaa ggtatgtaat tgtcaccttg ttctactgca gctccaagag gaagcatttt
51181
       atcttgctgg cataaatgaa attgYgtgtc tgtggtttac tatgatctat gtggttgacc
51241
       agacaagatg ggtaaacaaa cattggtgtc acataaatca taccaggata aggggttgta
51301
       ttttatgtgg ataatagctt gaaggtcgcc agcggttatt ttagagatgg ttgggaataa
51361
       ggaatgacat gtaattggtg tcttacagca ttccagaatt atataaaggg attaaacatc
51421
       cactcctcaa gtaaagtcta aaatattaac ctgcgaaata aactaaatgt aaatattttt
51481
       tcctcagctc tagcacttgt gatgctgaat tctctggcat ttttggtgcaa gtcttatatt
51541
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51601
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51661
       aaagctgtta gaagttattg tttcccattt acatttcctt tgcatttttt catcttttcc
51721
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51781
       aaaacatggg ttataatagc aaaggtgaat tattttctct gaatggctta ctagggtcct
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51901
       qqttcaatct cactttttga acaaatcaat agtaactcta aaatgctata gaaaaagaat
51961
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52021
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52081
       ttaatcttgc ttttatgtat ccctttgcat gcaatatgcc ccagtataaa gacatgaatc
52141
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52201
       gcccttaata tatagtataa taaaaactat ggaaatgcag atactggatc ttagcaaact
52261
       ctcacccaag gaaatcttct ttatcctata acagatgaaa tctgctgttt tctgctggta
52321
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52381
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52441
       ctttaggaca aagaaatctc ccacagcccc gctccttcct tttcttctgg gttggggccc
52501
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52561
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52621
       aaaatctgtg actcctactc aactcttgca ttttagagac accacagcat gcaatctcct
52681
       ctgtcagaag gttattctgt gaaatgccta aaaagggaat gattttatac attgattatt
52741
       gaacatcaac agatagtaag tagggatgag tgctcagaaa ttccagataa acaaacttga
52801
       aatgaagacc ttatacaagt ttaaacctat aatactgtac caacaagttc ctggcacaca
52861
       gcaaacactt aacagtagcc attatgccta ctgatgttaa taacataagt gtttccttga
52921
       tattaaactg aaccagaaga gaatatattt accttggatt ttatccctca tatcatgggc
52981
       ttgctctacc agctgacttg cgtggttaat ggtgtccatg ctttccttct gaacaagttg
53041
       tccttttctg gaggcttgat tttcctacaa ataatccgta taaaggctag attaaatgta
53101
       tgagaaaaga atgttgtata agcacagata ggggtgggtg ggcataatgt atttcctaaa
53161
       cgtaaatctt cctggcatgt gaaagttcta taacacatga aatcatccca aaaataatgc
53221
       atgaaaggta atgtgatggc cagttttact tttaaaaaaat tttttaattt ttccgtaagt
53281
       tattggggta taggtggtat ttggttacat gagtaagttc tttagtggtg atttgttaga
53341
       ctttggtgca cccatcaccc gagcagtata cactgcacca tatttgtagt cttttatccc
53401
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53461
       cgtcctcata gcttagctcc cacgtatcag ttaggacata caatgtttgg ttttccattc
53521
       ctaagttact tcacttgatg qccagtttta qaatqacaqa atqctataaa atctqqtqct
53581
       attectatat catcagteac agtteagtee caaccaactg cettteatat gtaatttatt
```

FIGURE 2-O

```
53641
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53701
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        aggcagacct tgaaatgcac catgcttcca gtggctcctg ggtggtccaa ccactgctga
53761
53821
        aattgaatta ccacagagat ttcaaggatt attctcactg gcctaacatg ctgttttcag
53881
        tgcttcattc caaattccca tcaacattga tggcacttgt gtacaaataa ctgctcaagc
53941
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54001
        gggagattct gtttcagaga tctcacacag tatttgtcaa aaataatgcc caactcaaat
54061
        gtggcctctg aagaaagggt ttgtgtgggc gtctgtgtgt atgtgtgtgt ttttgtgtgc
54121
       gtggtgaagg acagaatgtg atctaagagc acagaaatga ttcaaggcta ggacaccacc
54181
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54241
        gttatattta agaggaagag aagttettta gtetggeatK tggtegaatg cecaettgee
        ttgtctgttg cttttttggc tcagctcttt aaaaactgct acaatacgtg aaggagctgt
54301
54361
        ggggtgatct gccacacaga gcgctggtag acccattata cagagtttcc tgaggatagg
54421
        gaagtggttg ttttaaactt ctctcctttc atccagtatt ctacccagag gattatgcca
54481
       tgattttacc gggaacgttt ttacactctc caggaataac ccaagcaagt ggccctctca
54541
       gatggtcaag gaagagaatg cagaaatggt attataacaa acacatgccc aqaqqctttt
54601
       tattggagaa gggtaatccc ctccctacag agcaaggctc ctgtagtcac agagcccact
54661
       gtgcagcggc aatgtggtca tcagtccctt cataaactgt gggctctctg aatggacact
54721
       gtcttctgag tcattatact ccttcctgca attccagtct tcttcttggc ttgttccagt
54781
       gctttccaga aaaacagtat ttgtggtcat tttaaaatta aatatgcaga aactataata
54841
       aatcttaata ttactcctcc ctgcttttaa aaaatacgga cacaagcatt taaaatttta
54901
       gaatttttaa tgagttgatc tttgatccag tttaagttat atttgcaaag cacaacacc
       ctagttttta ctttggcttg atacttcaga gtaaagctct attgttattc ctatgtcatt
54961
55021
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55081
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.55141
       tagatagaga tatatagcta ttgatatact gtatatatga ctggatcagt ggcaaagagg
55201
       aacatctatt cctttacatt gtaagatgac tgaattgaac ctatagtgat ggcttatatg
55261
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55321
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55381
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55441
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55501
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55561
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       aacagcaaca gtcctggaca aaccaatagt aggaatattg gtgtgctact tcagaatttg
55621
55681
       tacagtaata totacttotg cotacctoot aaacattaat gaccotaaat tootttocag
55741
       ccctgattac cctctgaatt gcagattcac atctctatct gccctctgtg ccatcacaga
55801
       tatttcactt ttaaaatgtc cagagtaatc cattcgtgtt cgtagtctta gtcatccacg
55861
       tctcaggatg gagcttctct ctttgccatt tctcacctcc aactggtcac caagtctgtt
55921
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55981
       ccttgttctg tgcaaattct tttcaaatga aggcaagaca qcaacccact qctctcttct
       ctagaccact gtggcggtct cctaagcagt gcccctattg tcagtcttca ctggctagtc
56041
56101
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56161
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56221
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56281
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56341
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56401
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56461
       acccatgcca aaatatttca ctatttcttc cttagagtta ccgtttagcc tgtaccatgt
56521
       ttctcttatt aaatgctgta tcataattat gtttttactt atctgtttcc ctgctagact
56581
       gaagcatctt gaaaacaggg ccttattata tttcaggata cctagcacct agcacactaa
56641
       ctgtcacagg ccgggcgcgg tggctcacgc ctgtaattcc aqcactttqq qaqqccqaqq
56701
       cgggtggatc acgaggtcag gaatttgaga ccaacctgac caacatggtg aagccccatc
56761
       tctactaaaa atacaaaaag tagccggacg tggtggcaca tgcctgtaat cccaqctact
56821
       caggaggctg aggcaggaga attgcttgaa cccaggaggc agaggttgca gtgagccgag
56881
       attgcgccac tgcacaccag cctagatgac agagcgagac tctgtctgaa aataaataaa
56941
       taaataaata aataaataaa taaatattat atacagatgt tcaataatgc ttctggaata
57001
       gaaatgtaaa cagttatccc tcagcatcca tgggagattg gttccaggac cccacagata
57061
       ccaaaattca tggttgttca agtttcttac atagaatggt gtagtatttq caatactata
57121
       acctatgcac atccccctat atatattata tctaaattac ctctaatacc taatgcaatg
57181
       cctatacatc acttcgttca tatggattca aagtaatact cagcatatgg taaatttgta
57241
       ttttgcgttt tggaactttg tggaattttt ccaaatattt ttaagccatg attgaatcta
57301
       tgaatacaga gggccaactg tacttaattt tctcctgcct ttttggcagg accagagatg
57361
       aggttcagat gcttttgatg cttggagata gcctactttc cttttagtcc tgtgggtctc
57421
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```

FIGURE 2-P

```
57481
       atggtgcagt acctcctgag ccgcccttgg agactgtgct ttgtaactct gggctctgca
57541
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       cacctctgcY tgtagcccag tgacactctg accttgagca cagtggctct gggaacatgg
57601
57661
       aaaaqtagaa tcttqqcacg atctttqqaa ttttcattqc aqacaaqatc aqcaqcacca
57721
       aagggagcat cttttgagcR ctgggtattt atgaacacag atggatgggc atcctttagg
57781
       ggaatcccag acataagtgg tgggaaaggg ctgtaggact tcccagtaga aggctggaga
57841
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57901
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58201
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58561
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58681
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58741
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58861
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58981
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59041
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59161
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59581
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59641
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59701
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59761
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59821
       cgcaaataca cagaaaattc tccacaaaca tagcttttca agaaaaacaa tcaaaacgag
59881
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       aaggcacatg ggtcactgca ttttttctgg gctgtgttaa gcctcagtcg tttgtgacca
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60121
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60541
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60661
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60841
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60901
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60961
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61081
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61141
       gtcagagctg ggatttgaat acaagcaacc tagtttcaac gtccatgctc tcaatcattt
61201
       tcctaaattg actaacaaag caaaacaatg tgctggtatt gaattccatt ttccctcagc
61261
       taatgattat tattttaaaa atatcctttt gttgtgatag aagcccatga tttagtggga
```

FIGURE 2-Q

```
61321
       aagaaaactt gtaaatctta gctatacaag gacctttata tagtcatccc ttggtagttg
61381
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       tatttgcaga taatgtatgc acatcctcca gaatacttta aatcatctct agattactta
61441
61501
       taataccact tataatacta acacaatqtc aatqctqtqt aaataqttqt tacactqtat
61561
       ttttcttttt taattgttgc attatttttt attgtttta taaaatatat tttctatctg
61621
       tgattggttg aatctgagga tgtggaacct gtggatatgg agggccaact gtattactgt
61681
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61801
       61861
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61981
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62041
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62101
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62161
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62221
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62281
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62341
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62461
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62881
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62941
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63061
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63181
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63241
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63361
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63421
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63781
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65041
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```

FIGURE 2-R

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68821
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68881
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68941
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```

FIGURE 2-S

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69121	ttqcccaaqc	tcatagaggt	cagatgccag	taacttttc	atttaattcc	actgcatttg
69181			ggtcttttac			
69241	-		ggaaacctac			-
		_				-
69301			aaactctgaa	-		
69361	ttaacaaaat	gagcatacaa	aagtttactt	atgatagtcc	ctgacaaacc	cctactttta
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69541			gattataaaa			
69601			gtatttgagt			
	_	_				
69661			cttccgtaat		-	
69721	atccaaggaa	aacagaactg	gtaagtttat	ggctcaaatg	aaaggattgt	ggcatatgaa
69781	ctttgtcatt	ttggttagtg	attttattat	ttgggcaaaa	tggaaaacca	aaagatatga
69841	tgtttagaaa	aaaagattat	tttgaccaaa	aactgtttca	ggaatgcttg	aagctccccc
69901			tttctcttct			
69961	-	-	tgcccaaact	-		
			_			_
70021			ctgtctttgg	_	-	_
70081	-		atgtaaatgc			
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70261	aacttgatgt	cttcagagag	aattagacta	aatccccgca	tcacagtaaa	cctcaataaa
70321			tcttccttat	_	-	
70381	, ,	_	ttcatctctg		_	_
70441		-	tgctttaatt	-		
			-	_	_	_
70501	-	-	tcatcatgta	-	-	
70561	_		ctattaaagc			-
70621	cattgagatc	atatgactga	aaatggtatt	gaacgttgag	ggtcttgggt	tttagttttg
70681	gatttcttgc	taacccaatt	gtgtgatgtt	agattaagtc	acttcatggc	tcagagtctc
70741	aggttcctca	tctttttaaa	tgaactaagt	acacacacac	acacacacac	acacacacta
70801			tgggggcagg			
70861			tgacaggtaa			
70921						
			gtataatgac			
70981	_	_	gtattgtgaa	-		
71041			actatattca			
71101	tttctcccat	ctagctgtaa	gtttgtgtcc	gttaaccagc	atttccctat	ccttccccca
71161	tcacttacca	cctgccacct	ttcccagcct	ctaataatca	gaattattct	ctctacttct
71221	atgageteaa	tttttttag	cttcctcata	tgtgggagaa	catqcaqqat	aaaaaatqtq
71281			catcaccctt			
71341		-	tgctgcccaa		-	
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	_					-
71461			acttccattt	_		-
71521			ttcctggaat			
71581	aggaatgact	gactcctgtc	actacatagt	acctttttta	aaggaacatg	aaaagtgctg
71641			aaaatatttt			
71701	catgccagat	agtgtgctga	gggaagaata	gacagaggag	ggataaggga	tatgatgctg
71761			gtttcacaga			
71821			ttcttcctct			
71881			ggcttaaatc			
71941						
			cttaataaat			
72001			aagcttgcca			
72061			gtgtgaggtg			
72121	agggcccaga	gcaggccaat	attcatggac	ctaattgtta	agacaaggca	ggtgggcgtg
72181	tttgagctgt	ttttttacac	agtagtgtaa	gaggtagagt	aagtaaaaca	tgttttatgt
72241			atttgcatgt			
72301			gtgttagctt			
72361			tctatggttt			
72361		_		-	-	
			ctatgaaact		-	
72481			aaatgtccac			
72541			catgtgccat			
72601	ttttggaatc	tttagtttta	cagtttgcct	tgatgtcatg	ccacttgacc	tccaattgtc
72661			ctgtcacctc			
72721			acagcagaaa	-	_	
72781	ttáaagttat	tattaaaatt	aaacataaaa	ttaggaaaat	attcactgag	aactcctgaa

FIGURE 2-T

```
72841
       ccttcatttc caaggacaac caaggttctt aggtcacggt ttgagaaata cttccctagt
72901
       atgagagtgt ggtattgaag gtcaaggtag agcggtagtt cacaaagcag tgagagtcct
72961
       ggtgcatgag aatccgacgg gaagtcaaaa tacaggtcct gggcctcagc cctggatatt
73021
       ctttttcagt gggtggtgaa ggggggttgg ggagggctca ggaatccaaa gttttcctgg
73081
       agacagttgg acacagattt taaaaccacc acttgactca atgatctcta aagtgcaaaa
73141
       agacctagca ggttcttggt ttggactaat tattaccttt gtttaaaaca gatatccata
73201
       caaatcagtt gcatatttag aaaagctctt ttggagaggt tcaagttcac aaatacattg
73261
       aaagcacaga ttaggcgaag gttaactcag gcaacttaag agcttggctg ttcaagcaga
73321
       aaccctcctc ttaaccccag ggtcaaacaa atcaaaagca gcaaagacca ccgcaatttg
73381
       gaagacatag ctcttctggc tcagtttcct catctgcaag atgacaaaat acaaccttct
73441
       ctaaggtggc tgtgaagatg acagatgaag aatgtaaagc aacaaggaca taagtgataa
73501
       ttaatcagtg gcactattta gctcagagct gtaatttcta gctaaggaaa ccgagactca
73561
       gggaaatgag ccaacgtgtc ccaggaacac aatcggcagt ggcagaagtt ggacaatgac
       caccatgact catactgtca cctgttaatt cttattgagc atttactcag tgccaggtcc
73621
73681
       cacactSaaa actttgcagt attatctcat aacagtttta tgagacaggt aRctttattt
73741
       tctccattct gtacaagtgg aaattgccac ttggagaggt caaagaactt gcccgggtgg
73801
       gtcacaaagt ggtggagctg agattcacac tcacccaggc taatgctcaa atctcttctt
       ttcaacactc tactttcact ttccaaacca gtgctcttgt ctggagcctt ccactccagc
73861
73921
       agcagatctg acccagectt actgggtaat ggcagagete atgageatce tatgtggget
73981
       qaqqcattta tcatctqtaa ttccttqtca qaqqtqqqcq tqcaqtcctq ctqatqqttt
74041
       gggatgacag aaccettete tgcaccetg tgtgatttta caggactgtg ccettagggt
74101
       ccaggtgatt tcacttctgc gagctttgca tttggtcagc agggctctat ctaaggccat
74161
       taactctccc cgtgggggcc atYgaacacc cattagcaat actgcttggt cattatcaaa
74221
       ctaaattgaa tttaacctca gacactgagg agaaaaaact ccatcctggc tgattaacaa
74281
       ccgccacaga cctccagtga gccagaaaat gagtaaatca ggtgcctcct attcctgtgt
74341
       ctccaagtaa ggaaatatag gataagtgtg tcacaaattt caatcaaccc aatgtaatcg
74401
       atcatetetg teagteeete etaatagatg aaatteatgt ggaeeetaag etegetttee
74461
       ctcttatggc aataaataaa taaattcaaa aaaatccaca atcctttagt gaaataatta
74521
       tccacatttt gcatatttaa taatcataat aacaatgcct tccaagtgca aagatttttc
       tctgtatcac agatactgtg gcttttttt ttttgagttt cagacccact ttttgagaga
74581
74641
       tagagggtgt tttctttgga agtgagattg cttataattt aaagtttaca ttttaagccc
74701
       caggttgagt ttgtgagccc atctgtgctg ttgagggcct gcagatgagt gactgggtgc
       ttgactattt ccgcttggct cttccttccc tgtctctagg gcactacata tcRtttagct
74761
74821
       gcctaaacac aatggtgagg ccaatgctaa tggcatttct gttaaaaaca agaaaacctg
74881
       tctgagagac tctttgagca aaagccattt tatcttacaa cactgcgagc agctggcagg
74941
       tggagggaat gggaaatatc ttaccgagtc attcagtgga aagcctctcg tgctctgtgg
75001
       agaaggcctt tcttacatga gcaaagccca gagcagttta gaaaaagaga gaaaagagtg
75061
       tcatgtgctt ttcaaaagaa gacatttatg tggccaacaa acatatgaaa aaaagctcat
75121
       catcactggt cattagagaa atgcaaatca aaaccacaat gagataccat ctcacaccag
75181
       ttagaatggc aatcattaaa aagtcaggta acaacagatg ctggagagga tgtggagaaa
75241
       taggaatgct tttacactgt tggtggaagt gtaaattaat tcaaccattg tggaagacag
75301
       tgtggtgatt cctcaaggat ctagaaccag aattaccatt tgacccagca atcccattac
75361
       tgggtatata cccaaaggat tataaatcat tctactataa agacacatgc acacatatgt
75421
       ttattgcagc actattcaca atagcaaaga cttggaacca acccaaatgc ccatcaatga
75481
       tagactggat aaagaaaatg tggcacatat acaccatgga atactatgca gtcataaaaa
75541
       aggatgagtt tatgtccttt gcagggacat ggatgaagct ggaaaccgtc attcttaaca
75601
       aactaacaca ggaacagaaa accaaacacc acatgttctc actcataagt gggagttgaa
75661
       caatgagaac acatgggcac agggagggga acatcacata ccggggcctg tcagtgggtg
75721
       gggggcaagg ggagggatag cattaggaga aatacctaat gtggatgacg ggttgatggg
75781
       tgcagcaaac caccatggca cgtgtatacc tatgtaaqaa acctgcacgt tctgcacatg
75841
       tatcccagaa cttaaaatat aattgaaaaa aataaggaaa aaaagaaaag agtgtcatat
75901
       gtaaatacca gccagagatc cagaaaacct aaactcctgt ggaatttgtt tactttttag
75961
       tatggtataa agctggtata aagaatgggc gaaataacag ctttgtgggt tgtttttttc
       taatttattg ctctattgac aaaaggtgat tcacatttta tttactgagg aaacctcact
76021
76081
       cttttctggg gaacactaat tttagtacta tttctcattg atggagagag aaaagagtac
76141
       taccaaaacc atctagagaa tcttttcaaa atacacatcc tcaatttcct ttttccctgt
76201
       gtgcttatcc tgagatgtgg ccttggcctg aagccctagg aagcatattg ttatttgctg
76261
       tatctggggg atgggattta ggaaaacttc cctaaggggt tttgaaatgc agtccctcaa
76321
       ccactettaa gcateteett caggaceeac tgaatgggag tatggeagag etgttgagtg
76381
       tgagaaacag aaagcttcct ttgacccaca cagaaaatag agaattttat tggcttacct
76441
       ttcacagtta ggtccagcat aattttcgtt acaaatgcac cgaacagctc catttttcct
76501
       atagcaggat tctgcaaaac taaaattgga agcaaatatt ggaagtcaat tccatacatc
76561
       accaaagaga ctgtcttaac tttttatcag attacctcta tgttggtccc attaaagttc
76621
       taatgggtgc aatcattttc tttatttaaa cttgtacaca tttaccttgc aggaaaggtt
```

FIGURE 2-U

```
76681
        aggctagcag gccccaaaag aaaatgccac ttgttggtgg gaccatttcc caggtcctat
76741
       atatattt caagcactag tccaaaacat gtatcccaaa gctggaaata aaatgatcaa
76801
        attetacetg caattttgga tttataagag aateceettt tattteeate aetgtetatg
76861
       tagtcattta aaagtttccc ctttttttct gcactagaac ttgtccagtt ttaaagggaa
76921
        ggaaccagtt ctaaactata taatctccac agaattataa tttctttcat gtgtacttta
76981
        aatattggaa ataaggttgc tgagactggc tgcgtcgatg aaagtcccag tcaagtactg
77041
        cagcaaaaca taggacccac cataaaagga ttttatccca tggaaccctc tctctttctt
77101
       cttcttcctt ttttaaagat aataaaaatt aggacacagg acaaaaaagt aataaaaata
77161
        ttggtttagt ggaatacata agtctcctca ctattaaggc aagggaaatg gggttatggt
77221
       ctccacgtgt ttggaaaatt cttcatagac acatgaattg tgtggggcat aggggtgtgt
        gtgtgtgtgt gtgtgtatgt aaaattttaa ggacttttaa attagctttg gctttggtac
77281
77341
        tatacaacca ataaagtgtg acccgctqct ctcttqttcc tttatqtatc agcatttctt
77401
       accctaatgg tgtttggagg aaagcaaata gatgtgttta tttgtttgaa gacacttaaa
       aaatcagtca gaaaacaata tgtgcttctc agtgaaaggc aacacccaca atttattttc
77461
77521
        gcaaacagtt gggtaaaaac attccaacag aattacattt ctttggcctt ttacccttta
77581
       ttttgcttgt tctgatttct tagcctactt aaagaaccac tgtcagttaa gagtccagaa
77641
       caggaacceg cgcttccatc tttctttgaa ggtgttccac ccagcagcct gcccacgctt
77701
        gaagcatgca acatetgcta ggggcatetg gagtcatecg cetgtagetg gtgteetget
77761
        gtttcaaaca gatgacattt tccttaactg gagcgatttc catagctact ggtagagatg
77821
        qaqqacqtct qqccaacccc caaataaata catqaacatt atqcaaatqq tccctqqqaa
77881
        caactgcatg accactggtc tctgtggcga aggcagactc ggtggcaggg ccagcctca
77941
       {\tt agggttcgtt\ tttgtttctc\ atcagcatta\ actgtttatg\ ttttgtctgg\ ttttggctag}
78001
        ggaagtgaaa acactgcgtc tctctcagcc cactgtaacc actgtggtgc ccatttcaag
78061
        tggaagggtg ccttttgctc ttagaaaatc cttaggaact tagagaaaaa tagactcggc
78121
       cctttqtttq cttaaYcccc tqaaqcatta tttccttqct ttcttqtaac tqqaaatcca
78181
        aatcctgcgt ctgtgggctc agcttcatca atgtttcaaa atgtaattca gagtctaaac
78241
       tagacgcctt tctgaaaagt cctggaactt tcattttata gaaagtagca atatgaattt
78301
        cttaaaaaagc tgaaagaggc aatgggcatt tgatttttga taagatattt gattagtatt
78361
        tgagattagc taactaagtt aataataagt ccagatcaaa ggttagaact ttttaggacc
78421
       caagaatatt tgttctgttc catgaccaca gatgaacccc tcctctcctt ttttgcagcc
78481
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78541
       aaatcccttg gtctctcaca cccttaccaa ttcctcccta ctcctacatg atatttactt
78601
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78661
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78721
       tctaagtccc ttcagtgctc ctttgaaccc tggatccact tacacagaga aaaaacatgg
78781
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78841
        tccacagttg gcaacttttg acttcatttc ttaaagagtt aacagcattc agaaacgctt
78901
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78961
        agtttcaaaa cactgctgta ttttgaccta tcttaataaa ggtgagattt ttgactgttt
79021
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79081
       cagtttttat accagtgtat aataagtgct cgataaatat ctgattgcat gtagacaagg
79141
       cttctcagtc catagggaat gatgttctaa aggtctcata tcccaagacc aggtaattta
79201
       gataagaaag tcttgtcatg caaatggggt gaaaagtgca aaagtggaac agcataatta
79261
        gaaagaacca tctgagattg cctgcctaat tcatctgcta ctgccaaaaa aaaaaaaaca
79321
       aacactgcag ctcgacgcct ataaaccttt tctgagcaga tgaggctaca caacatgttt
79381
       atgagagaat gagtgaaacc agctatgagg aagttggagg taatatattt aacaatatat
79441
        accatggcaa gagaactgtg ctaaatatct caccagacgt gattaaaacg aatgcttgag
79501
       agcagaatat taatgaacaa tgaaaaagta taccaagacR gagtgaaggg agctcataaa
79561
       tcaggacata cttgagtgaa aataacagaa cagttaatgt ttgcgttttc taccctcact
79621
        gtgagtacca tcccttttgc acatgttatt aataYtatca tacatgaaaa attacagagc
79681
       aaggtctgag gcagtttaac agtttctgaa gaaggatggg actgaaactc Rtctgactac
79741
        tctgactgtt agacttgtag tatttgaata catcacaagc tattaggtga aatgttagtt
79801
       gatattggtg ttcaattaag gaaaaaacat cgggggaatc tgattgccat ctgtcttttt
79861
       cttttctgtt tatcagtaag tgtgtgagta tgagtgagtg cgtgtgtgta gtaagcattc
79921
       agattttaaa aagtcatttt atgtgtatca tttaatcttt acaacagcta tcaattacgt
79981
       aaatattaca tcgaaacact tagaacaatg ccaggcatag agtaagaaaa atccaagtgt
80041
       tagaaaaaat atagcggtat gtgttcagta aaggcaacat ctaccttatg cctttccatg
80101
       tttagggtac aaacccaaat cctccacaca tattatccta gtccagtcct cacaactcta
80161
       tgatgcagat ccttacttcc tagtttgatt tactgtacta aggagaaaat ctgaaatact
       gggctggtaa atgaatcaag gagtagagcc aagatctgaa cccaggcttc ttgacttcaa atcccatgga aagtgagatc tagggagaaa gtaacttttc tgagatcaca caggtattat
80221
80281
80341
       gtgtccaaat ttgaatatga acctagattg gctactcttt ctacttgtgg cataataaaa
80401
       aaaacagtat ttagcctttg gttcctggca cagactcctg taattcttgg aatttcctga
80461
       gggaaaagac tgtcttttgt tattcataac aggcaccttt caaccatatc tgagtttatg
```

FIGURE 2-V

```
80521
       ctaatgaagt gactcacagt ggacccttgg ataccttgag agtgggagcc tatgaccaga
80581
       ggcaccaccg aggaaccaaa catgtaattg gacgttgtga atttcaaccc tccccacccc
80641
       caacctccag ggaggagagg ctggagattg agttcagtta ccaatggcca atgatttgac
80701
       caatcatacc tacaacatga aactttgata aaaactcctg agcaacaagg cttggggggc
80761
       ttccggttgg tgacacgtgg aggtgctgag agcatggtgc tccagcagag agcctggagt
80821
       ctctgcacgc actccttctt cactcccact tctccatatc ctgctctatg catcacttcc
80881
       atgtagctct tttggagttg taacctttta acaaactgac agtcataagc atagcacttt
80941
       tctaaactct gtgagtcatc ttaatgaact gtcaaacctg aggagaggtt gagggatcct
81001
       tctcaaattt acagtcttct gggaagaagt gtgactagcc tggggacccc atttttggct
81061
       ggcatttgta gtgggggcat tcttgtggaa ctgatctctt aatctgtggg atctgcactg
81121
       actgtggaaa cttagtgtca gaactgaatt gattgtagga cacccagttg gtgtcagaga
81181
       gttggtcatt tggaaaacca tatatcacta tacctcttaa attccatatt ctgtcatttt
81241
       aaagagaata aaatggccat tgatgactta attactggat ttacacatat tccattattt
81301
       ccattaaaat gtatgtctct ttcctttaac tactcattca ggtcaaaacg tagccagaaa
81361
       gtgttcctgt aaatcttctg tgagctgatt ggcctaaagc atgcattctg ttgatctgtg
81421
       ttctaattct gactgaaaag ccatatgtag ggaaatgttt cctttgtgaa agtcagaaga
81481
       ggcaatatta ctgaaaatat gatattataa tgagtctgtt gggattacca gttgtgattg
81541
       ctctaggtca agagaaagtc aagaaaagat gagactatcc ttgcttataa aacttaggag
81601
       actttattga cctcatgatg caccccaata tttcgggaac acagtcatca tctatattgt
81661
       aagtgcttaa gcattccagg tggtgtattt ggactagaaa ctttttctat atcttttcca
81721
       gtctcatctc aatatgaggt tttgcctgtg gagaaacctc agaactctgg gataaggcaa
81781
       aacaaaacaa aacaaaacaa aacaatacat agactgatca ttagaagaga ccatcctcct
81841
       ttaggactta cttggccaag tggggcaggg gacaggggca cggctggcag aattggggtg
81901
       ctcccctgat ggaatctccg atataaccat ccagacactt ttcacagtgc tctcctgttg
81961
       tgttccgctg gcagtgctat gagacaaaag acaagaagat tgacaaggat gcgaaagaaa
82021
       ttttagagac agcacatcta agcatcatgc aatacttttt caagcaaaag ggacatcaga
82081
       tcagacagca cagactgtat gcggcagtac Rgattagcat gaggagtcac actggcccca
82141
       gtcaatgcca gaaaKtgtgg gtaagtggtg aattaatttt tcctgggctt ttgtgtgtg
82201
       gtgctagtag cctggggact ctagagtttg tgtgcagagg agattattca tcagttactt
82261
       atttcagttc agagtgataa tcagaatgat caaaccctgg atgttccaga aatattggct
82321
       tattgacttc gaatgaatat gaaatgagaa accaaccaac caaccaacca aacaaacaaa
82381
       catccccctg gtacttatcc atggcaatgg gaacaataag gatttatggt cttggaagga
82441
       taaaatgtgt cagactgtag tataaatgga gtagaaggta gataaagagc attctgctca
82501
       tgggttggta tcttggatag tgacatagaa gaatcagtaa ggaggttttt tttttgtatg
82561
       attttcccac ttgtagtaaa gattatagga gtaaaagcac aaagcaggct gacccttctg
82621
       tctggaatgc cattcatcat tcaagatcac actaggctgc aaaatctctt gaaagtacat
82681
       cctaattctc cctttcagga tccttccttc ttttccacta cccatattgt agtgctatta
82741
       tctattctca gcctcatcac ccctccccaa ctctgtgtct ttcagcactg tattgccatt
82801
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82861
       cagtgagcta acacacaaac agctttcttc tatgggacta tactagtggt acaaggcaaa
82921
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82981
       gttgcagtga aaaattatac tgttagaatg tcattgaaga agcaccctcc tatttgagca
83041
       attgccttag tcacaccgat gcataagagc ttcaacagga caactttttt aaaacagtgg
83101
       aggagccttg ggaaagcaag atggagtagc agtagactga actctgaggt ccttattttg
83161
       gcctttatgc tttatttgag gttcagaata aaagaatagc aaggccctgc tctaaacatt
83221
       ttgtatggat taactgactt aattctcaca acaatcctga agtaggttcc tatttcccct
83281
       gccaccctca ccctgccat tttacatctg aagagatgga ggtgcagaaa gattaagcaa
83341
       attgcccgag gtcacacgga tagtaggtgt caaaagtgag attcaaattc aggaaatctg
83401
       gctccagaag tgaacttgtt agtttccata ttatactgct tctccagtaa tgttgaagaa
83461
       aaggettaac aaacagtaRt aaaatgaatg cattagaagg catcagtgtt actaacactt
83521
       tgagcttcaa ttgaaatata atattaatac attagtcaaa ggggaagaat cttaataagg
83581
       gcaactagct atcccggttg aatgttcttc aggcatttga tcagccatta ggtatgagca
83641
       atctttagtc cctgattaaa attatgtctg caaagtagaa tttaggggct agttcagatt
       gcctgacaga tcaatgagaa actctgaaaa ataaagtatg atatgcagac aacaggatgt
83701
83761
       taacatattt cccttacagt tcttaatact gtgtcttgtg ctaagtcagt ctttggaaat
83821
       atttattggg gaaaaatgaa ggaaaaggga aaagcatgga ttaatgaatt tgtgtctgga
83881
       gcaaataaag gaaattaaca tgaacccaaa gctaatacaa agttgcagca atctctcatc
83941
       ccaggaaaaa ccaatgagcc ttacccaact accatgaaac taagccataa acaatctggc
84001
       agggctgctt gtaggctggg gttaaatttg tctgagttct tgctggacgg atgaagcccc
84061
       tctctgcaga agaaaacagg cccattgtaa gatgttaggc cattctttgt gcccaaagtg
84121
       actactgtgt tgcaaaaatg agctaattcc caattctgtc cccttatgqc tcgatagatq
84181
       ctttagattc cttgtcaggg ctttaattct gccatggcag ccatgggaag cagtgaccct
84241
       caaaagcaaa gccaccaaat ttcttttgcc ctctaactgc tcagaatgca agtatgaact
84301
       ttcctcatct gccttcttc aaaaggttta ttatgaaact ccctaaaagg cttcaatgca
```

FIGURE 2-W

```
84361
       cattctggga gattggcaga cagagtgctg gaggcaggga gaaaaggtcc ctagctcttc
84421
       cactttctag ctggtcaact ttgaacaagt ctcttgacct tcctggtttt ctattccctt
84481
       atctgcaaag tgatgattta gactagatgg Sctttcaggt ttcttctagc tctgataatt
84541
       ttttactttg agattgcaaa atgtcttctg ttttaccttc agtgctctgg catttaaaaa
84601
       acagaaaaca aatatgacaa caataaaaaa ggtatgttgt tgtgaggtga atggtttggc
84661
       tctgggttcc catccaaatc tcatattgaa ttttaatccc cagtgttgga ggtggggcct
84721
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84781
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FIGURE 2-X

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88381	ctaagctgtt	ttattttcat	ttagccacta	ttctatattt	gaaagattag	tottccacca
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88501			ggcttaggtc			
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			cctggcttct			
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			ctgggattac			
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	_		_			_
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91141						
						caacttacca
91201						cagggcacac
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91441			tactaccatt	-	-	
91501						
			tcctttcact			
91561	-		aataagaagg	_		-
91621	·	-	aagcaaaaca	-	_	
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91801			aacatgttaa			
91861	_		gggtgctgtt			
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FIGURE 2-Y

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FIGURE 3-A

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       cagtatctgg gagacagaag atatgactcc tagttcctgc tttaccactt cgcagctgtg
3361
       tgactatagg aaagacMgtt tgcctcttt ttcctcaaag taaaatgaag gagttgaact
3421
       cagtgatagt ctttcagatg tctatccgtt cttaaattcc ttagttccat actttggatt
3481
       tttagaaccg gacttccttt gggtggaggg ggtttgggaa atgctggttt gtgattagat
3541
       gaggagggg gttatggaag tgttggacaa tgacagaggg agatttaaaa atcattcttc
3601
       tctttgcctt ttgctcttct gacagtgaga atcaggaagc tgagaagcaa gaaacttaga
3661
       aaggtgactt aaaattctgg cctatttaca caacaaatta gctaagatat tttaatgtat
```

FIGURE 3-B

```
3721
       agcttactag aatagaaggt gccaccaaat ggtaccagga gttccaggcc tgagaactgg
3781
       aagggtttca ggtagaggca gtgcattcca gtgaggcaga ctaatggctt tctgagtcca
3841
       gcctgtgaag tgttctcaat atgaaaccat ttctgctgaa aataaaattt gaacagtaat
3901
       ataagcagta cccattggaa attgacatta tgaggtcaat tttacaaaac tatgcagtct
3961
       ctgttatgca tgaagccaca ctgattcaaa caaatccaga aaacactgcc ctcttcaaca
4021
       ctgtcctctg cttttaaact tttagtcagg ctgggaacag tagattttat cttattttt
4081
       cacctttaaa aatctttcag gtgggcatag tggctcacac ctgtaatccc agcactttgg
4141
       gaggccgagg caggtggatc acctgaggtc agcagtttga gaccagcctg gccaacatgg
4201
       4261
       gcaggcacct gtaatcccac tactcaggag gccgagacag gagaattgct tgaacttggg
4321
       aggcagagac tgcagtgagc caagattgaa ctccattgaa ctccagcctg ggcaacaaga
4381
       gtaagactcc atctaaaaaa aaaaaaaaaa aaaaaaaactc tcattgccac cagcctggcc
4441
       aatatggtga aaccccatct ctactaaaaa tacaacaact agttgggtgt ggtggcgggc
4501
       gcctgtaatc ccagctactt gggaggctga ggcaggagaa tcgctagaac ctgggaagca
4561
       gaggttgcag tgaactgaga tcgtggcatt ccactccagc ctggatacag cctgggtggc
4621
       agagtgaggc tccatcaaaa acaaaaacaa aaacaaaaaa aacaccaaat aaacacctct
4681
       cgctgccaga caagactctc ttgctatagc tatacatgag ccctcatgca tgaaatggta
4741
       aaaagcaaat agtgattggc caaaagagta acctgaggcc aggcgcagtg gctcacacct
4801
       gtaatcccag cactttggga ggctgaggcg ggcggatcac aaggtcagga gatcaagacc
4861
       atcctgtcta acacagtgaa accccatctc tactaaaaat acaaaaaatt agccgggcgt
       ggtgacacac gcctgtagtc ccagctactc aggaggctga ggcaggagaa tcgcttgagc
4921
4981
       ccaggaggtg gaggttgcag taagccgaga ttgccccacg gcattccagc ctcagtgaca
5041
       5101
       gaattaattc aatctttggg ggcttcaggt aacaatggta gctgtggggg cctgagcctt
5161
       tagggaccct agaaacagtg gatggaagct ttcctaccac tcccagccca catacctctt
       tctgagtttc tttccaactt ctttttcca gcagttacag gaagtgagta agagcagagt
5221
5281
       gggtcactag gcagagagta aaggctgctc cttttggcaa acccatcttg gtatctccct
5341
       ttccctttct ttgtttacta gaccaatgca aaagtgaggg gcctgtccca tcagctcact
5401
       aaagaaccac agttgcttag gaaaagttgc ctatgcctgc ctgccaagat cttagccctt
5461
       agattatggc atagtaactc tagcctctgc tccagccctg attatgccct gaggtctttt
5521
       gRtgtctgtt gagagagacg tagggaaact gggaaaaatc aaatgtatct aaggatcctg
5581
       gagatgttat acccagagag tgacagaatg ctgagatggc Raaggtttaa gagctcttct
5641
       gtggttgagc cttaaacacc aggcagagct agacagacaa ataacacaaa agagtaaggc
5701
       aggacaggaa gtgactcaca gactggaggg cacatgcctt ttctgagagg gagcaggtaa
5761
       ttctcagctc taaacccgtt atggagaaat acagactatg ttgtcaaatc ttgggatttt
5821
       tcaaaagaag ttaaaatttt gatttttaaa agacatctcc tggtattttc atatcgcctc
5881
       tgaattcaRa tgtactaaaa ctgctgttta ggtcaaacag aatttacctc tgatgcacca
5941
       gtttgcaact tttatcctat tctagttctc tctctcttgt tggcatgtcg taaactgatc
6001
       agaagactgg tggagctttt gcccaactgg ttggatgaat gcctttatac agcctctgtt
6061
       ccaccccacg cccatctcca ctcccactcc tacttgcatg tctcagagtc agcatatact
6121
       cactgagcaa atgagtattt ggggagtagg acagaatcat tgttttatgg atttgagaga
6181
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6241
       atctggtcat ccttacagca tgacagatgc atttccctgt tttcgcttga aagtaagtgt
6301
       gagetteaca gettgatttt acagettgae agtgagtgtg tgetgetate acageetett
6361
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6421
       tgctgctcag gcagtacata tttaattggg aaaaaataaa aatacttctg ttcctgacac
6481
       ttaagactca caaaccagta ggcagtagga aagggaccac agtgactcgg cccctggagg
6541
       ctgagatctt gtctgatcag ctctatttca accaactctc agaatgacat cagtatctgt
6601
       ctgtcttagt cagcttgggc tgctatatca aataccatag attggatggc ttaaacaact
6661
       aacatttatt tttcacagtt acagcagtcg gaagtccaag atcagagtgt cttatgaggg
6721
       cccacttcct ggcttgtaga tggctgcctt ctgtcactgt atcctcatct ggtggagaca
6781
       gaaatcatct ctttctcata tctcctttct tagggcacta atcccattgt aagtgctcta
6841
       ccttgatgac ctaattacct ctcagaggcc cccacctcca cgtgctatca cattgaggat
6901
       tagggettea acattttgga ateacacaaa catttagtea atagcactge ecagageeac
6961
       catgettece tgtgcccate tggctageca tgccccaatg ctatacacac caccactggc
7021
       ttttaagagg caaagagact ggtgacagat gggccttctc tcagatgtct ggaaaaggcc
7081
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7141
       aaaCagagag gtacagagag tccactattt cttggacatt tttacaaaat aaataatttt
7201
       tttccatttt qcaaatatca tttcaaaata acttatcaqt qccacccaat aqaaatataa
7261
       tgtgagccac aaatataatt tcaaatttta tagtaaccac atttaaaaaag taaaaagaga
7321
       caggtggaaa ttaatttcaa taatatattt tatttttatc caattttttt ctgatatata
7381
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7441
       aacatataat gatataaaaa ttgttgagat tattttacat tattctttat tctcagaagt
7501
       ctgatgtgta tcttacatat atagcatgtc Ycagatcgga ccagccacat ttcaagtgct
```

			PICI		7	
			FIG	URE 3-0	-	
7561	-	tgggcttatg				
7621		ttatctgaac			_	_
7681		tgctaactgc				
7741 7801		gctattgata				
7861		atgtactctg ctgagaacat				
7921		gtgcagtttt				• •
7981		catactgcta				
8041		tttcaaatgt				
8101	agttaactat	ctagctggat	tattgttaga	gccattcaca	tagtgctaac	tttttaactc
8161		aaaatatgga				-
8221		agaggttgga		-		_
8281		cataaatcta	_			
8341 8401		gggcattatg agctttcata				
8461		ttatccaage				
8521		ggaaccacaa	_			
8581		cgtcaaagac	-			_
8641		agacccagct	-		_	
8701	caggagcccc	aggggaggag	gacatccaag	gcccaacaaa	ggcagacaca	gagaaatggg
8761		cgggcacagc				
8821		agtctctgaa		_		
8881		ggaggaggga				
8941 9001		ccttgaagag				
9061		tataaaaaaa gaagacacat				
9121		gaatcacccc				
9181		ggaagatgcc				
9241		gagcaggccc				_
9301		ccaggaggaa				
9361		ccattcaacc				
9421		ttatccaggc				
9481 9541		tgaRgaatac				
9601		aaactacccc agagagggc				
9661		tgcctatttc				
9721		tgtccaagaa				
9781		ggacagaaat				
9841		agacctgcag				
9901	aacaatatag	ctcccatcac	acagctgaaa	agaggaagag	attaggggaa	ctgttcaacc
9961		ccctctccag				
10021		cgagggtgag				
10081 10141	-	ctatgactgg aaacctcgcc		_		,,,,,
10201		ggaccagctc				
10261		ggagccggtg				
10321		cctgacagag				
10381	tctggtcaat	gttagcacat	tatgttcaag	actatccgat	attcacgggg	agaaattggt
10441		cactatgaaa				
10501		tacctctagc				
10561		tgtctgcaca				
10621		acttagttcc				
10681 10741		gcgttcagcc catcactctc				
10741	-	ttagtttgct				-
10861		ggtaacacta				
10921		taggttggtg				
10981		gagttcctca				
11041		tggctgatgc				
11101		gcagcttcta				
11161		agaaattggt				
11221		aaaacttggc				
11281 11341		gctgactgtc caccacttca				
~1011	accegeeee	caccactica	ccyaaayaca	Coaccacac	accountyge	ayaaaytaya

FIGURE 3-D

```
11401
       acttactatt cattaaatgt ttgacacaat tggaattgtc tttaatttct gtcagaatgc
       tattgaaaat gtgaattgca tgacttgtag catattcttt tctgcaaaat agacatatta
11461
11521
       acatgcttat gacaatgact gtgctactgt ctttggaaaa atgtttgtct cagttggaaa
11581
       taataaaaga ttcacctgag accaaaagct tcattgttct cagcttcttt tgggcaaaga
11641
       qaqaqqtqtq tqacttttca aatctattct ttqaaqtaaa ttqcaaaaqa tRqccctaqq
11701
       atttgttggg ttttggatgc ataatagaat aaaaaagcaa accttttgaa gtaatgtgca
11761
       ggatataaag agaaatagat tagaaaaaga catctactcc cccatgctga gagagattac
11821
       aggggcttga agaacctgtt tcaaaaacaa tcataagata ttactttaaa aattccttta
11881
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11941
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       tggcccctca gatcttgtct gatttctact ccttaagaag atagaggcag ctgggYgcgg
12001
12061
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12121
       gagtttgaga ccagcctggc caacatggtg aaaccccatc tctaataaag atacaaaaaa
12181
       aaaaaqctgg gcatggtgqc gggcacctgt aatcccaqct acttgqqttq cagtgaqcqc
12241
       agatcaggca ttgcactcca gcctgggtgg cagggcgaga ctctctcaga aaaaaaaaa
12301
       12361
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12421
       cttgtaatct cagcactttg ggaggccaag gcaggtggtt tgcttgagct caggagtttg
12481
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12541
       gcatggtgtt gtgcgcctat agtccctccc tactcaggag gccaaggcqg gaggatcact
12601
       tgagccctgg aagttgaggc tgcattgagc cgagatcgtg ccactgcact ccagcctagg
12661
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12721
       tctgttacta agtagctctg actttgggca agttactttt cctctctgaa cctcaagatc
12781
       atcaatgaaa taagatatti gicicattga gitgitacaa ggatgataga gitgatgcaa
12841
       aacagagcag tgcctggtgt atatcaacgg cataggaagt gttagctgct gccgtaatca
12901
       ttcttgcagc ttcttaggac aatacagttg gacaattccc cttctccctt tttttacctg
12961
       tcatttaatt cctcaccctt ggtggcttct acttggttga tttctactgt tttcacagtt
13021
       ttggtaaaga gttattctct ggaaggtggt gcagaagaga gtaagacctt ctctttactc
13081
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13141
       aaaaaacatt ttaattacat gcataggccc aggagtccca cacaatagaa gactcagaag
13201
       ggccagatga ttgaagtttt tatagcatcc tgagctacag aagagaatag ggggcttggg
13261
       gttcctgggg gacacagtta tgggaaggta gcaggaggaa ttgtatgata aataaaggtt
13321
       qtqttqttat qcaqataaaa tctctcaqqt aatcaaaqtq atccaqcaqc cttcttttt
13381
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13441
       ttcaaatatt taaatacatg taggaccaaa gtaaatgtga cacagtataa aggaatccat
13501
       aaatacagag aactacacta tatttctcta gaggcaaata catagccaat tcctctaaca
13561
       caattcaacc tttatcatta gatacagaat tgtgcaatta ttaacaaaaa tatgataatg
13621
       ttacatgtag ttcttcatgt ctttaattag tatgaaatat aaaagttgaa aatactgtgc
13681
       caatttcata tactcttttt ttttaaaaaa gtcatattta catctaccta gatgaaacca
13741
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13801
       gaagttactg atgatcaact ttcttacttt aaaataatac aagaaaaatc aacaaaactg
13861
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13921
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13981
       14041
       ctatggctgt acataacaga gcagagactc aacagcaaca cagagtaggt taaagtgcac
14101
       cgtacgcaga cagaagatgg ccagaaagga ggcatgtgtg cccaggctgg cagtctctgY
14161
       actgtgaaag cttcagtctt tagccctggg ctttatgctt ctgtttgctg gtgagctcag
       gcacaatgca tatacattca gtgtctgtca ttccaacagg cacagttggc agcttaatgg
14221
14281
       tggcattaaa atggagggct atttgcatac aatcaatcaa atgaaactct gtggcttcat
14341
       tccaagccta ggggtgcccg gagactgagc ttttgcaaag ctgatgtggg catacagaag
       aacagtgatg cccttgtgcc ccacttccag ggcgatcgag agcatggtgc tgccatcatt
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14461
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14521
       cccgtgcttg ctggcacaat gaggaccatg gagcccttgt cgtcctggag gttgacctga
14581
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14641
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14701
       aacctgcatg teetetgett eegeagetge gagggeegee ageatgatga aggtatagee
14761
       ccttgttctg gtgatccacg ttacacatgt gggtgtccaa cagcagcttc acaatctcaa
14821
       aattggagtg ggacaYgctg taatggaggg ctgtgttgct gttgccatct gccaagttga
14881
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14941
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15001
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15061
       agttgcaagc agacaacatt ttttcactta atttatacct ccctctgatt ttcaccttct
15121
       caggiticacg ticitigaaac tgcatticat citiccaccct ggccRactig aaaccttcaa
15181
       tgttaatggc atggtgccct ttggccattc cccaagtgtc ttcatcctcg tcttcttcaa
```

FIGURE 3-E

```
15241
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15301
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15361
       aactgaagat tettttteat gecatttgaa tetttgttae catetttett etteataatg
15421
       ggctccagtg tactttcatt gtttgtgcat atggaggcca gcggccatct ggttgtctgt
15481
       caggiticact agagaccatg teetiteetg ageggggaag geateetgge tgetgaccag
       ctttccttct gagatcccta cctctgagca gccttcttcc tgatacagat actttactaa
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15601
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15661
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15781
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15841
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15901
15961
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16021
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16141
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16201
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16621
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16681
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16741
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17341
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17581
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18061
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18121
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18241
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18481
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18541
       aacaacaaac acataatata atcaggagat ttcaggtgct gaaataatta attaattgca
18601
       gtaattacaa ttctgcagtc caggatcctg acactcacat atatgacagg cttcactgag
18661
       aaagtatctg ttgatgaaag acctaaagaa agggtgtgag ccatgtggac acctggggca
18721
       aggacatttc aggcagaggg aatagtaggt gcaaaggccc tgggtcagga atgtgtttgg
18781
       catgtttgaa gaagaacaag aggccagagt gggagactgt cgtaggaggt gagcttagag
18841
       aggcagcagg ggccaggtca cgcagggctc tctgtaggtc ctggtaagga cttttgtttt
18901
       acaattggag agttctcaac ggatgactga taggatttgc tttatgttta taacaacact
18961
       ggctgctggg ttgagtgatg gctgtagggg aagtgaaggc agaaacacag aaaccaataa
19021
       ggagggcact gtaatgaccc tggtgggtca ttgtgatggc agggtccaag gtggtggcac
```

FIGURE 3-F

10001						
19081					gagacagagc	
19141	ggctgctggt	tttggtgtgg	catgagggaa	tgagaggaga	ataccaaggc	tttaggcctg
19201					ggtttggaag	
19261	gggagctcag	atttgaactt	gttaagtttg	agacgtgaat	agatacccag	cagaggtgtt
19321	gagctgggta	tatgagccag	tactagagga	aaaggcctgt	gttgaagact	gcatgtggga
19381					gtgagatcac	
19441	ataaatgagt	gaaagatggc	ctctgtttat	tggctcatag	attgtttatt	tcttcattgc
19501	aggctgacac	tgattactgc	agaagccaaa	ctcaaatttt	tacacatcca	attattttaa
19561					ggtacatacc	
19621						
			_		tggttataag	
19681	cgatgttaat	cccagcactt	tgggaggccg	aggcaggcag	atcgcttgag	ctcaggagtt
19741	caagaccagc	ctgggcaatg	taatgaaacc	ctgtctctac	taaaaataca	aaaattagct
19801	atatgtggtg	gcatgcgcct	gtagtcccag	ctacttggga	ggctgaggtg	ggaggatcac
19861					gccactgctc	
19921					aacaaaaaca	
19981	gccgtccctg	tccttcggag	ctctctgacc	cagagactcc	cctctgtact	gctgtgcaac
20041	accacctaga	cacataagcc	ttatttctaa	ctctcccctc	cctcgggggt	atccttqcct
20101					ctctttgcac	
20161						
					gtgtcaccat	
20221	atatgtgtgt	gctgctgcca	tctcatggtc	atgtctttct	ctttgatcag	tccccaaatc
20281	ctccaaacac	cctagggagt	tagtgtagac	aagaaaagga	agaagtgcaa	gtgctgagcc
20341					gaaccagtaa	
20401						
					gtggtgttct	
20461	ggaggaaaag	cctggcaagg	agagggatgg	acggtgtcag	acactgctga	taggtccagc
20521	ggaccgagaa	ggagctctgg	atgtcacact	accgtccatt	gttgcttgct	gcccacacca
20581	aacctgcttc	ccactgtggc	tactccaaaa	gactactata	ccgtttccac	cagtgccaca
20641					tttttcacaa	
20701					caattattca	
20761	agtgtgaaag	cagccattga	caatacataa	acaaattgag	agtggctgcg	ttccaataaa
20821	acttcagttt	gaatttcatg	taattttccc	atqtcacaaa	tttattttat	tttttattt
20881		-		_	aaaatctttc	
20941						
					atttaaatta	
21001	ttcttattt	tatctccttt	cttgaatctg	tcaccatatg	actttattta	tttatttatg
21061	aatgacagag	tctcactctg	atgcccaggc	tggagtgcag	tggtgtgatc	tcagctcact
21121					agcctcccaa	
21181					ttagtagaga	
	ccacaggege	cyccaccaca	Cccagctaat	culgialli	ccaycayaya	ayyyytttta
21241					gagccaccct	
21301	ccaaagggct	gggattacag	gtgtgagcca	ccaagtctgg	tctatataat	tatttaattt
21361	aatttaatct	agtttatagc	tcctattttg	tgtcactcac	aggtgacagg	agagcactga
21421					ttcccaaaag	
21481	acctactate	atttcccctq	gattaattto	tocactettt	aaagtttgtt	gaattagaat
21541				-	cccctcttc	
21601	atccacagca	ccttgttacc	tgtcaaagca	aaaatgaaat	gtcaaaatct	ttccagtctt
21661	gttttaatga	tatctcagct	aagagtaaaa	aaaaaaaaa	acaaaaacaa	aaaagcccca
21721					tgggtagagt	
21781						
					tcagatagct	
21841	agtaaaggtt	aatacggtag	ttgaaaggtt	actggttgct	ttttaagtag	ctattcaggg
21901	acttacctct	ctcaccatct	gacctgtgct	acatagttaa	gttcaaggaa	aattataatc
21961					atttcaagtt	
22021					atcaggataa	
22081					tgttcttgca	
22141	ccaacacttt	aaaacaacat	gcaaacactc	cattttttt	Ycccaaagct	tcactatgta
22201	ttgagaaaag	gctattttg	gcttttcaat	atacaaccaa	tgcatgaatg	attoctcagt
22261					atgccctgta	
22321					atggatgtta	
22381	tttgtctttg	acttcttgat			ttctacataa	
22441						
22501	ggctggatgt	ccaaaaatca	taaaattatc	cgcccacccq	cccaaaaqqc	
	tttaaacaca	agacaaaaac	atcctgtatt	tagctgtacc	catgatgtgc	atgcacacag
22561	tttaaacaca tcgtggttcc	agacaaaaac cagtgggcgg	atcctgtatt ttcctggacc	tagctgtacc aacagcacca	catgatgtgc atatcacctg	atgcacacag gaaactactt
22561 22621	tttaaacaca tcgtggttcc gaaatgcaaa	agacaaaaac cagtgggcgg tgctctgtac	atcctgtatt ttcctggacc cactccagaa	tagctgtacc aacagcacca gtactgaaat	catgatgtgc atatcacctg cttattctgt	atgcacacag gaaactactt ggggtggagg
22561 22621 22681	tttaaacaca tcgtggttcc gaaatgcaaa	agacaaaaac cagtgggcgg tgctctgtac	atcctgtatt ttcctggacc cactccagaa	tagctgtacc aacagcacca gtactgaaat	catgatgtgc atatcacctg	atgcacacag gaaactactt ggggtggagg
22561 22621	tttaaacaca tcgtggttcc gaaatgcaaa gcccagtggc	agacaaaaac cagtgggcgg tgctctgtac ctctgcttac	atcctgtatt ttcctggacc cactccagaa caagccctcc	tagctgtacc aacagcacca gtactgaaat aggggaatct	catgatgtgc atatcacctg cttattctgt	atgcacacag gaaactactt ggggtggagg atgctaagtt
22561 22621 22681 22741	tttaaacaca tcgtggttcc gaaatgcaaa gcccagtggc tgcaaaccac	agacaaaaac cagtgggcgg tgctctgtac ctctgcttac agaattcaat	atcctgtatt ttcctggacc cactccagaa caagccctcc catctgtacg	tagctgtacc aacagcacca gtactgaaat aggggaatct cagattaagt	catgatgtgc atatcacctg cttattctgt aagttttcca aaactatatg	atgcacacag gaaactactt ggggtggagg atgctaagtt aatgagaaaa
22561 22621 22681	tttaaacaca tcgtggttcc gaaatgcaaa gcccagtggc tgcaaaccac aaaaaaaata	agacaaaaac cagtgggcgg tgctctgtac ctctgcttac agaattcaat cagattaact	atcctgtatt ttcctggacc cactccagaa caagccctcc catctgtacg tatgctgttg	tagctgtacc aacagcacca gtactgaaat aggggaatct cagattaagt gcattggtaa	catgatgtgc atatcacctg cttattctgt aagttttcca	atgcacacag gaaactactt ggggtggagg atgctaagtt aatgagaaaa caaggtaaca

FIGURE 3-G

```
22921
       aaagatttag ggaacggaat gcaacttgca aaccagtaac caggagacca gccactactg
22981
       attctaatct atgcagtttt ctgttctcct tgtccaaact tgattagYta catgtgtgtg
23041
       tgacaccage ttgcaacaca ctccgtgagg tgccaatcca ggcatgtcct ctacaataga
23101
       cagaccacgt cacaatcggc cgaaagccca caggacatca ctgactgcat cactgttaga
23161
       agaatcacag taggaaacat tttcattttt atttatttt tgagacagtt tcactcgtcg
23221
       cccaqqctqq agtgcaatgg cgtgatgtcg gctcactgca acctctgcct cccqqqttca
23281
       agcggttctc ctgcctcagc ctcccaagta gYtgggatta caggcgttag ccaccacgca
23341
       tggctaattt tctaattttt agtagagatg gggtttcaac atgtttgtca ggctgatctt
23401
       gaacccctga cctcaggtga tccgcctgcc tgggcctccc aaagtgttgg gattacaggc
23461
       atgagccact gtgcccggcc gacattttta ttctttaata gcaattagga taaaggactc
23521
       aaaattgtac ttagtaatca cattggcata gcacatgcta tttggaaaaa aaWtttttt
23581
       tctgagatgt tccttgctgt atgatacagg cctattctat gacaggagca acgcaaacga
23641
       tgaccatgtt ccagtgagca agactcaatc tctcaaatga acaagagcct tggctgattc
23701
       taaacacttt ctttgctaca gcacatgatc aaatgattag agtttttcag agcttagaaa
23761
       gggtaaccat ctaatcatga cagagttctt cagcattaat aatcaagaaa ggcactttag
23821
       ggacatttga caaggaatga cactaataca atgagaaYtg gtctaagtcc tgcacaagac
23881
       tttgataYaq ttcaaataga ctgcacactc tttctgtccc catgtgtaca tacatattca
23941
       tacaggtggt acaatctatg tctccacttg catgtgtatg tatatatctR tgtatatata
24001
       aatatatgtg tgtatatata ccaacatcta tatacatatg tgtgtgtgt caaatgtgta
24061
       tccataagac caYagagggg gaaaagacat ttgtttcctt taattgaata gtacacaaaa
24121
       attctagtca ctttatttag aacaaagaat aagagtattg gcaaattaat gcaaaaaagt
24181
       accctactaa acctttctat gcacaaaaaa gagcagtaaa ataaatactc agaactttcc
24241
       caggttgtca actattaaaa taaaacctca gcatttcaaa aaagcttatt ccgctgcagg
24301
       aaagaaggtg gacatttttg gtaccataat aaatcacaca ctcacacatc catattgctt
24361
       aggttgaaga gaacggaatg aacagaggaa atttcttcca tgaattgccc tcctttcggt
24421
       acceptcatg ttttagttac gttgtattat tccacttage ttaaaatata aagtettgta
24481
       gaaacacatt tttaggatgt tgaagttctc aagatatttg cacagaatat ttagaagtac
24541
       ttagaggagt tttgttaaat gcagttggtc atactacata ccccatggtt gcagttttga
24601
       cagaccaaat gcatctgtgt cagaaataga caaaaggcat atactcctcc ttcctagaaa
24661
       cgggtacata gacatgttct tattcttggg atatgaaaaa acaagtagta atggcattta
24721
       aagtttaatt actaactgta taatgcctga gaacaaaatt cagagcaatt ctcaaaaggg
24781
       ttaagagtca gactctgggc attttcgttt tttagctgca ggctcctcag tctcgtgtga
24841
       ttctaaagtg cttgcattag atttgaggct ggtgtctgct ttaaggttgt ccatggcaac
24901
       ggtgaagccg gagagaagat aacccccacc tccactcatc agcagtttag gatgacttcg
24961
       atctggcaaa acctaatcaa gacagaaaag acattcatgc tttcctaaga caataaagtc
25021
       catgctaaca acacatatac caaaaatcag aatttaaaca acacaggttc tcttgatgat
25081
       25141
       25201
       taagaggcag ggtctcactg ttcctcaggc tggagtgcag tagtgagatt ttggctcact
25261
       gtaacctcga actcctggcc tcaagtgaac ctcccacttt ggctttccaa agtgctggga
25321
       ttacagataY gagccacggc accaggcttt aaatggacca acttctaagg actaatttct
25381
       tcacattaca atgcaaagaa aagtgtagaa attggtttaa ttgattttct tttgaaaaat
25441
       aaaactggcc gggaatggtg gctcacgcct gtaatcccag cactttggga tgctgaggca
25501
       ggtggatcac aaggtcagga gtttgagatc agcctggcta acatggtgaa accccatctc
25561
       tactaaaaat acaaaaatta gccaggcgtg gtggcacaca gctgtaatgc cagctactcg
25621
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25681
       cgcgccactg caccccacct gggcgacaga gcgagactct gtctcaaaaa tgaaaaaaaa
25741
       aaaaaaaaga gaagaaaaag aactgaagca gttttcagtt cagcccaggt ttatctagaa
25801
       actgaagcat gtttctggcg gagaatgggt aatggtcttg gcagtactct agaactgtgc
25861
       atatagcttt ctttctcctg gcttcaggaa gcttcatggc caataatgga gcttgggtct
25921
       atggagaagt tgctactgaa tgtactacac tccaaacctc ccttccccgc taccctgtta
25981
       actetgecaa ggcaacttet eteetette teetgtaace ttagecaaga cagacaacet
26041
       ccacaaaggg cagggttacc caaggctcaa tagcatcccc actacagtat ggtaagacac
26101
       caagcaatga gacggggcct acggcagcat ggaggtgctc ccctcagatc tcccttcatg
26161
       agggaacage tgagaggcat teaggeagta gaacacetee agetgeeget cetttgggat
26221
       ccactgcagc attcataccg agggaggcca tgggttgctt ccagtcagta actgagcatg
26281
       ggtaccagag ctggagcatt tctgcttaac acagggctcc ttgaatggcg atctttccac
26341
       ttgggctcgc catcagcctc atggagactt tctccagagc agcactgcag gctcttccta
26401
       ccatcctcct ttctctaccc gctccttgcc caggcatcaa cctgcaccac caatcttgct
26461
       coctctcccc ttRtctttct aaggcatttc cctcaataaa tctcttacac ttcaacttcc
26521
       atcttagcat atgtcttcca gaagacctga actgacacag agcccaccag taaatcctga
26581
       aaacttgctg caaaaacatc ctggcagaga ggaaagggcc agtttctcat ccacctggga
26641
       attttgctat tgtcaattac atcatccaca gtgatactga ggccttgggg aaataagaac
26701
       cataatggtt tgcattttaa atgcctttag ggcagagtta cagagtaata tattctgaca
```

FIGURE 3-H

26761	taacaagaga	aaaaaagggt	cacaaaaagt	caggggcata	ttctctgagt	aacagccatg
26821			aaagaaacag			
26881	_		gtcacccagg	_		-
		-				
26941			ttcaagcaat			
27001		-	gctcgactga			
27061			tttttttgta			
27121	ggtcttgaac	tcctgggctc	aagcgatctg	cctgccttgg	cctcccaaag	tgctgggatt
27181	acaggcataa	gccactgtgc	ctggctgaga	taactctatt	taatgacttc	tagtactact
27241	gcaaqqaaaq	tcaagtctcg	ggagggcagc	tcttgggact	ggctgtaaga	acacqtacct
27301			tcagacagcc			
27361	-		agaggctgca		-	_
27421		_	atcaacattc	_		_
27481		-	acagtagacc	-	-	
27541			agtggggtgg			
27601			ctctacaccc			_
27661	_	_	atttgcatga	_		
27721			atacaatcat			
27781	ggttagaagc	tcttgtggta	cttggcaact	ctaagtcgca	tttaatgaca	ttcttgattt
27841	tttaaaaaaa	atcacctgga	aacaaatcca	acactgcata	agctgctttg	tggatatctg
27901	ttatagcctg	tatcgcagca	tttgagtgcc	ccatcccctg	catccagtgg	gaccacaRgg
27961			gagaagattc			
28021	_		agcctcagcc		-	_
28081		-	tagagtcaaa			-
28141			cactgaggag			
28201		-	agagcggcag	-		•
28261		-	atcttcaaaa	_	-	
28321			atgctctggc			
28381			gcaggttgtt			
28441			gattaagcta	-	-	_
28501			acgtttgtat			
28561	tagttatcat	cttgggagct	aatacaccaa	agccaaacta	aatctcatga	cttaactgaa
28621	gttaactgag	ggactgagat	tatgggggtg	gtggggactc	ttggcatcct	tacataatct
28681	tttttgcttc	ctctctctt	aggcccctta	tgttctggat	cttgagaaat	tgtttccatt
28741	gtttcctggt	cttctgggtg	gttgctctct	ggggcctctg	ccatgctgtc	ttcattctct
28801			ctccagtgtg			
28861		_	cttggcagaa			-
28921		_	accactgaga	-		_
28981			tccagggtat			
29041			cccgtggagt			
29101			aaggtctttc			
29161	_			-		
			ctgtttggag			
29221	-		aagactcaaa	-	-	-
29281		_	ggatgtcaca		-	
29341	_		gttacaagtt			
29401			attcttccag			
29461			caatgaaatg			
29521	cactgtcccg	aaagccctag	ccagccacag	gctccagcat	catgcccact	gacagtgaag
29581	ctagaaagga	caattgccat	gggtttgggg	gtacccatgg	gtgggggct	gggtgatgga
29641	gactgtgtaa	gaaggtcccc	atgctaggag	ccgtgcaggt	tcacccaagt	cactttgtta
29701	accctgaagt	aattcaattt	ggctttccat	gagtttacat	ttttggacca	cctttactca
29761			gaaaatggaa			
29821			ctgcacacgt			-
29881			tctgggctag			
29941			agctaagtaa			
30001			ttgtgttgat			
30061						
			aggtaggagg			
30121	LLLLaCTTAA	adicatgact	ttcttaaaga	Catatttccc	ccaattatac	Lettgaaagg
30181			ttccaggttc			
30241			taatgatggc			
30301			aaaatatttt			
30361		-	gggcctttta			
30421	ttttaatata	tttatcttgg	gcaaattctg	tcttgtctcg	gaatgttgta	ctattttcaa
30481	ttaactgctg	aactatttcc	tataagaaaa	ggagcaagta	gattttctga	aactttactt
30541	tcacaaaaca	agtaatttcc	aaaggcttct	tacccaagaa	tggatccaat	ggtctgattc
				_	= =	

FIGURE 3-I

30601	tccaatccct	tttccacaga	agtccaaata	gatgaacttt	atatttctat	actctatttg
30661	gaatttataa	taaaatacaa	gtactttata	actccactta	aaccaacgta	aaagaacaga
30721			gagaggtaaa			
30781	aacattactg	aaaatgaaca	aagttaaatc	ctgatatgSa	ctgttattac	attctctacc
30841			tcacttatat			
30901	tgttgagtaa	catgtacatt	tcaacctatt	tctatcaaag	ctataacgtt	atttttttgt
30961			ctttaaaaac			
31021	aaacaaaact	aaaaatcctt	tgaatattac	ctctccttta	atgcccttgt	ccttcaaagc
31081			gtttctgaga			
31141	agtgcccgct	tctttagtct	ctaaggaaag	aaattgctct	attgacattt	atggtctgaa
31201	attatttgac	actttcttt	tctgagttca	tatccacatc	cagtccatca	gccactcaag
31261	tctggcctcc	cagctgcact	gcccccatca	cactatcctt	tcctgccaaa	actactccaa
31321	gcctctaagt	catcttcctg	ctcccagtct	tgccccccta	ctatccacct	ggatgccaga
31381	gtgctctttg	tttaaatgca	atttgactca	tctaccccat	gcttaaaacc	atacagtggc
31441	ttcccatagc	aataagaata	cactccaaag	atgacctgca	aggtcataaa	tgatctggcc
31501	cctgcctatc	attcctggcc	tgatctcttg	acactttagc	ttcagccaca	atggccttct
31561	ttctgttcct	tgaacacacc	cagcaaggtc	ccacagcagg	cttttggcac	ctgctgcttc
31621	ctctgcctgg	aaggttctac	gacagatgtc	tgagtggctg	gatcctttct	atcacttgag
31681			ttaccaaatt			
31741			agaaatcatg			
31801	tgttccaact	ggtaagcaca	ttttatacga	cagtctatct	tatgaactgc	tataattgca
31861	gcgccaaatt	atacctggca	tatatttggt	gcttagtaaa	aatatggata	ttaatttaaa
31921	tgtatctaaa	taacaggttt	gactcaaaac	tttaaYaqta	tttaacttca	aataattact
31981			actctcaatg	-		
32041	aataacagct	tttggacaag	aggttgttaa	gaaataataa	tagtaatagc	taaaattatg
32101			cactattcag			
32161	caatacaacc	taggcattaa	atgtgtttat	gaccctattt	tacatatata	aggatataag
32221	actcacagaa	atcaaataag	ttgcccaacg	gtacaaggca	agtgatgaag	gtagaaattg
32281	aacttagctg	gatccaaaac	cagacctctt	aacctctaca	ccatatgcta	accacctcac
32341	agctgttaca	taacttctgg	gcactgaaag	aactttacat	tatgttcttg	caatgacgca
32401	gcaacgactc	ataggattaa	atgcctggcc	caagaacaga	gaaccattta	atggtgggct
32461	ggagccagaa	tccaggttat	ctcatggcca	aaggcagtac	ttgcttcact	ccactgagct
32521	gcagttctta	gattatgagt	taagatttct	tttgggatag	catggcctag	cacttgggaa
32581	ttaggtggag	gYtgagatgt	ttctgactag	tcagttggag	agcatctatt	tcacgcatcc
32641	aaaatgtgca	cctgcagtag	gctcttccct	cttcttcttg	ggctgtagac	ttcctccact
32701	ggtcacttca	aatgcagttc	cataactatg	gccaatgacg	ttatccaggt	agaaccactg
32761			tagggaaaaa			
32821	tccagtacag	aaaagacatg	ttcactacag	tttatttcaa	aagtggtctc	cacaatggaK
32881	gatcagcagc	attatctctg	aacataaagc	aacaaaggaa	ctagagagaa	cctggttggg
32941			aataagccac			
.33001	aagactcatc	gaagtaacaa	ggatttaaca	aatttcttgg	gcttggtctg	atcggccatt
33061	ttatttgaaa	attatctaat	aaaagcaaat	tatacttgca,	aataaacact	gacaatctac
33121			acactgacaa			
33181			tatcttattg			
33241	aatSctttct	tctcaaaaga	aaactaacat	ctgctgagtg	ccaaccaggg	gctaggcagt
33301			actttttgat			
33361	_		gaggcccagg		-	
33421			gattcaaatt			
33481			ctactccagc	-		-
33541			gtgcacagaa			
33601			cactccttct			
33661			acatcaccca			
33721			ctttattggt			
33781			aaccatctga			
33841			tttgctgggt			
33901			taatgtaaac			
33961			catcctttaa			
34021			cttgtaatcc			
34081			agcctggctg		_	
34141			gtggcacaca			
34201			caggagtttc			
34261			gcttgagccc			
34321			gggggaccga			
34381	agacaaacca	aacaaaaaca	ctggatctga	gatgggtggg	tttacctctc	cgagagccta

FIGURE 3-J

34441	tgtgatatgc	agaggggatg	atgcgtgtca	cttaaaactg	gctggtttga	caggtcactg
34501	ccccaqtcqq	gaatgtgggg	ccccgttaga	gggataagga	ggccacatct	ttactqqqaa
34561			tactictcag			
34621						
			atgagggagt			
34681			aaactgccac	-		_
34741	aaaagtattt	ccaaataaat	gtttagggca	gtggtctcca	acccttttgg	caccacaaa
34801	ggggaaggtc	aactactgtt	catgcctgta	atcccagcac	tttgggaggc	tgaggtggcc
34861	ggaattactt	gagcccagga	attggagact	agcctagaca	acatagtgaa	actctgtctc
34921			ttaaaaaaga			_
	-		-	_	-	
34981			tccggactaa	_		-
35041			cttgtgcaaa			
35101	gagacttgtt	tcttgactat	tttatgatgc	ttgcttcacc	ttaaatacca	gtcaacagtt
35161	tgcttaaacc	aggagtaaaa	gaattcatct	gaagtaagta	cttatcagaa	attccaaatc
35221	tcatacttcc	cagtctgcag	aaagctgttc	tcctgacatt	gcattcaact	tatctctgtc
35281			gctcaaaaga	_	-	-
35341			ggccgaggcg			
35401						
			aaaccccgtc			
35461			gccagagtcc	-		
35521	cgcttgaacc	tcggaggcag	aggctgcaat	gagccgagat	tgcactactg	ccctaaagcc
35581	tgggtgacaa	agcaagactc	cgtctcaaaa	acaaaaacac	tgtggttgta	tttctcagat
35641	aaattaatcc	aaatatccca	ataaattttc	accattaata	agctcttagg	acttaacaac
35701			gttatcaaaa			
35761	-	-	caaaccaaac			
35821			cagcgttgaa			
35881			gtgaattgtc			
35941			ccagactagg			
36001	tcctgactgg	gggattaggg	aagaaggagg	atctatggtg	gaaaaaaagg	gggaacctga
36061	aggagactct	ggagacaagg	atgagatcct	aaagtgaaga	aaggagggg	tgtctctgga
36121	aagacagtga	agatcccaag	gtcctaggga	aagaacttca	ggacaggtga	ttagggtgtg
36181			ctagggccaa			
36241			aaggtggacg			
36301					_	
			ggagattatg			
36361			cgaggagaca			
36421			aagaattctg			
36481	aaggtggggg	cgggagaccc	ctaaaatcag	cgatctgact	tactttctcc	gctggacttg
36541	tactgcttta	aacacatctt	cacgtttcag	caccacgaag	tcgccgtcgc	ggatgcggtg
36601	gtctccggga	tactataatt	gtgggcccgg	ctactcccct	gagccctcca	tgacgctcag
36661			cgtcccgccc	_		
36721			actaggagcc	_		
36781			ccagacctca			
	-		_			
36841		_	ggctgcactM	•	_	
36901			gaagcgccaa	-		
36961	cttgaggcat	ttttgcggcg	ctgtgcgcta	cagacacctt	ctggaagctg	cggtggggaa
37021	actgagtttc	ccgagccgtt	gagacagatg	gggttcagca	ccgcgcgggg	acgacaggaa
37081	agctgcggct	gaagagaact	gcggacttgg	caggagtcgc	ctgaggagct	aagatcccgg
37141	agactcttag	ccccataata	cttctctacg	ggaggaggg	agggagaatc	caaccaaca
37201			ccggcccagt			
37261			agccttagga			
37321						
		-	tttactcttt	-		-
37381			tattgtctcg			
37441			gaggctgaaa	-		
37501	ttgatcttga	tcggtttgct	taatttcttt	gagcatcagt	ttcataatgt	gtaatgccta
37561	attattggag	ccctgtcatg	ccgttaaatc	gtgaactttc	tagttactat	cttgttttat
37621	taactaaacc	ccttttaagt	aaggatttgg	gtagagtatt	tgataatgaa	ttqcactqca
37681		_	ttacttgtat		-	
37741			tttggattta			
37801			taagaagcta			
		, , ,		J J J		
37861			ctgccctata			
37921		-	tcctattttc	•		
37981			aacctgtgag			
38041	ttattaaact	attatggtat	accttaaaaa	gcgatagaga	ttagaaactt	aactgcagaa
38101			gctgtacaac			
38161			tttttattaa			
38221			aatatctatc			
	5 ccccyy cya	_940000000		cccuyyaya	guegaalgga	Juguauugay

FIGURE 3-K

```
38281
       gcagaggatt tqgacgagga agatttcaaa gctggaaaag gggaagaggt ggtgggaact
38341
       tctcaggaaa atggagagaa agagaacaca gacctgatct gagtaaaacc acaggaaaac
38401
       gtacttctgg taggtgaggt caatgattgt tcaatttttt tcacttaagg aagcaattca
38461
       cgtctatcat acaaggcggt ttatctcata cttcagtttg tcttttattt catgctactc
38521
       cttagtaagt atttgaacat tgatgtccca gatttttact aaaaccccta atttggatac
38581
       tctattaatg agagtctcat ttggaaagag aagcatattg gaaaaatgtt cactctgttt
38641
       ctactaacct agtattttat ttttttcaga acaaacccca cagtttttgc tttcaacaaa
38701
       gaccccaMag tcaatgcagt caacattgga tcgattcata ccatataaag gctggaagct
38761
       ttatttctct qaaggtaggg tttaaaaagt acaaaaaagc accataaatc atatttctt
38821
       aacttgtctt tggatgctac atcttgtatt actgtaattc atttactaac atatacctgc
38881
       tttaatctta gttcacccaa acaattaaat gatgtttatg tttcaaaagc attttagact
38941
       ttatatcagt caggaaagca gaaaccatac taggtatttc aaaaagggga cttaatacaa
39001
       gaaattggat acaaaaatgg aagactgaaa gagcagaaag gaaatattga ggtaactccc
39061
       cagaaagtag taattcagga agcagcaacc atccttatgg ctaagagact aaaagaagtt
39121
       ctgaggttac cagaRtgtgg gaattcaaag gttggagagg tcacagcata gctgttattt
39181
       tgacttttga ggggcaccct acaaagctat gcttggactt ctgaaggcta ccttacagag
39241
       ctgtgcttag accactaagg caaatgaagc tggttgccac tggtaactga gggggcatga
39301
       ctcagtggtg cttggaactg gaggctagca ctatcgttat cttctgcagc tgcagagatg
39361
       ctgaaaagag ttggaaacaa gaataaattc ctttctcttc ctgccacctt cccqtctcta
39421
       aagtgccttc aattggcaga atttaaagag aatctgagac atgtagggta cagatctgaa
39481
       ttataqcatc qcaqaqcaqq aaqtaqaaca qtqqqcctqa aatcaaqqqa caataacaaa
39541
       tacagctttg tgtagaaaca caggtaagga atctcccttt gataattagg aataccaatt
39601
       aacctacatc agtctgtata ggtgcaggga actgtctttt ttgtgctgtt aaaataccca
39661
       39721
       actttttatt tttttttgag atggagtctt gctctgttgc ccaggctgaa gtgcagtggc
39781
       gcgatcttgg ctcactgcaa gctctgcctc ccaggttcac gccattctcc tgcctcagcc
39841
       tcccgagtag ctgggactac aggcacccgc caccacgccc ggctaatttt ttctgttttt
39901
       agtagagacg gggtttcaYc gtgttagcta ggatggtctt gatctcctga cctcgttatc
39961
       cgcccgcctc ggcctcccaa agtgctagga ttccagacgt gagccaccgc acccagccgc
40021
       atactttttt tttttaggaa aactagacgt ttgaggtcca ggaccctccc tgccccatac
40081
       caggcatgca gtagtcattt tgtgaatgaa tagagtactt tacaaatgtt ttctttattg
40141
       gaaatctgtt cgttttttc catcaRtaga atctgtttca tgaatgatct tttgttcctt
40201
       taggatgtat tagccaccag cactcccatt gctcccctag cagatagctc agaacactat
40261
       aagtgatctt tggacagtcc taaagatgga gttcaagagg tgccttagcc ttcaccatct
40321
       gtgcttccaa actactttat tgtactgttc ttctgtgaga gacatatttg aaaatgtaga
40381
       actttagagt gttaaaaaaa aaaaggcttt tcagttttgc caccagggtc aagtgttggt
40441
       ctgtctcctg atctcaggaa agactgtgat tgtgattgtc ttcagctctg tcagagtaag
40501
       agcttagttt atgtgtctgg ctttggcttt attataattt ttagtttaag cttattgtct
40561
       aaattatctg aactaacatg tcctattagg tgtcaaagat gcaaaacaaa gtttcccaga
40621
       tagtggggct tttagagaga gagagtttct gtctgcattt cacattatgc aaacctaaat
40681
       ttgttttaga atcttaagtt tacattctat actagttctt atatgaatgt aatcaaaata
40741
       caaagcaatt agaaaaaat catctaccat gtatatagtg ctgcttttgt ctcatgaaaa
40801
       atgtgcatgt acctgtgtga ttatttgtgc taatgccata tttgttggat tagtttacag
40861
       cgatagetet cetttgattg agaagattea ageatttgaa aaatttttea caaggeatat
40921
       tgatttgtat gacaaggtaa gattcctcta cagcaaagct accagtcatg tgccatctta
40981
       ccaaYgtatt cgaggtactt gtgattatga tcgtaggcac tggagtcaga cttccttggt
41041
       tcagacctYa gttctgccac ttacctgcag tatggacttt gattaattac ttctctgtgc
41101
       ctcagttttc tttcatttgg agatagaggt ataaatacct acctcaaagg attgttaaga
41161
       ggcagtaata cattaatata tttaaaatat cagaaccatg cttggcacaa agcttatact
41221
       tatgtcatac ttaccattat cacatataaa cattgtatgc tttctcaaag tctataatag
41281
       aatgctcagt taatggtaat tgactacaga aaagcaatta ttgttttcat acttttatat
41341
       tttataggat gaaatagaaa gaaagggaag tattttggta gattttaaag aactgacaga
41401
       aggtggtgaa gtaactaact tgataccaga tatagcaact gaactaagag atgcacctga
41461
       gaaaaccttg gcttgcatgg gtttggcaat acatcaggta actatttgtc ttatgcatac
41521
       ttttgtctaa acttttttaa tgtttgcaca cacatgcaca ccttgtctaa gtttaaagga
41581
       agattttaca gtgactgtac tttctataag agatacttag cttttacgaa aagatgttgg
41641
       ctagaactga gaggttgcag ttccgttctg aaagatacca ttcattctat atacaacagc
41701
       ttatctaaat gaaatattta cctccaactt atttggattt gcttaatctt gctaaagatt
41761
       gtgcagaaat taaactttgc tttcaagaag ttatacaatc tcatagggaa gataaaacaa
41821
       ggaatcatgg tgttatcggt tatgaactta gagcaaaaaa gagcaacctt agatttaggt
41881
       tctgtggcat gaagcaaacc actgagtgtc cctgtatatc aaatgtaaat aacaRtttgt
41941
       actgtgcttg cctgagtttt ttttcagggt caggtaatac aacatatatg aaaacatttt
42001
       42061
       tgttgccagg ctggagtgca gtgtcatgat ctccgctcac tgcaacctct gcctcccggg
```

FIGURE 3-L

4212	, ,	tctcttgcct	-		_	
4218		ttttagtaga				-
4224		gatccgcctg				
4230		ccaaaaacat				
4236		tcaggacagg				
4242	= = = = = = = = = = = = = = = = = = = =	tgtgctgtcc				
4248	3 2 3	gctcagttgt			-	-
4254		ttgtctgtac				
4260		gcctcttagg	-			_
4266		tatttattta	_			
4272		gtgtgatctt				
4278		tgccacactt	ggctaatttt	tgtatttta	gtagagatgg	ggtttcacca
4284	, ,, ,,	gctggtctca	-			
4290		ataacaggtg			_	_
4296	, ,,	gagtgagtat				
4302		atatagagaa			_	
4308	, ,,	ggggactaat				
4314		gatgctggag	_			-
4320	_	taagtagtca	taattaaata	ttagatattt	aaagggctgt	taaagttttc
4326	-	ctgtttctgt				
4332		ttttgttttc	_	-	-	
4338		aaaggcatgc				
4344		taaatgtgcc				
4350	-	tgggacattg			_	_
4356		taaaaaggac				
4362	_	aaattattca	_	-		
4368	1 gttgatttcc	taacctgcag	atttttgtaa	acattggttt	tggatgtgaa	cttatcaaga
4374		taagtttaat	_			-
4380		tgctccaaaa	ttcaaaactt	tgagccctga	cacgacactg	aaaggaaatg
4386		cacttcagat	_		-	_
4392		aaaaattcca				
4398	1 tcagtctgta	atacactaag	tgttctttgt	taaattatta	ggtttttgtt	agatacaagg
4404		attattttgt				
4410	-	taaggtaatc				
4416		cagttcttta	_	_		
4422		gcattatttt				
4428		agaagaaaaa				
4434		gctcatgcct	-			
4440	, , ,	tcgagaccat			-	
4446	_	tgggtgtggt				
4452		cttgaacccg				_
4458		gcaacagagc	-			
4464	_	tgatatttct	-			_
4470		aggaacttgt				
4476		tagggtgtac				
4482		aaaatacatt				_
4488		caagatggct				
4494		aaaatacagt				
4500		aaagaaggca				
4506		tttattttt				
4512 4518		tacagaaata			_	
		gacacatttt				
4524		accattccca		_	-	_
4530		atttctgttg			_	
4536		tttagaagtg				
4542		atagaaaagt		-		-
4548		taatattatt	-	-		
4554 4560		gttctcagtt		-		-
		tgtattcttc				
4566		tgtgtttacg				
4572: 4578:		tgtagttcta				
4578	ı giggagiğil	gctttaaata				
4584		cagttttta gaggaatact				
3030.	L Ciccitagea	gaggaatact	aagttytagg	cigiacitt		

FIGURE 3-M

```
45961
       ttqaqacqqa qtctcqctct qttqcccqqq ctqqaqtqca qtqqcqcqat cttqqctcac
46021
       cgcaacctcc gcctcctggg ttcaagcagt tctcctgcct cagcctctcg agtagctggg
46081
       actacaggca cgcgccacca tgcctggcta atttttgtat ttttggtaga gacaaggttt
46141
       cactatgttq qccaqqctqt tctcaaactc ctgacctqqt gatccqcctq cctcaqcctc
46201
       ccagagtgct gggattggcc ggctgtactt atttttaact gtattagatg ttaccaaatt
46261
       actttccaga gtattgttcc caacttaaat ctttgctggt agtgttaagt agttaccatt
46321
       tctctgtctt ttcattaaca cttggtattg ttagacttgt acatttttga cagtttgtta
46381
       ggtataaata atactgcatt tataatgtga atttttctga tttctgttgt ggttgagcat
46441
       cttttcatat ctttactggc cattcagttt ctttatcgaa ttttctattt atatctaatg
46501
       ttcattttcc tgtttattgg tttattcttt aattttgttt tttagagatg gggtctcatt
46561
       ctgttgccca ggctggagtg tagtgacatg atcatagctc attacaacct tgaactcctg
46621
       ggctcaggtg atcttcccat ctcagcttcc cacgtagttg ggactacagg tgccagccac
46681
       tgtgcctggt tctattagtt tattgatagg agttctttat acattctaga tactaattat
46741
       tgttgattat atacattaga tattttctcc cagtctttgg tttgtctttt aactttgtgg
46801
       gtttttttgt tgtacagttt tacattttga catgatcaaa ttgttgtctt ttcctcccta
46861
       attigtatat tittatgccct gcttaagaag ccgttcttcg gctgggcttg gtggctcatg
46921
       cctgtaatct cagcactttg ggaggccgag gcgggcagat cacctgaggt caggagttga
46981
       agaccagcct gaccaacagg gagagacccc atctctacta aaaattctaa attagccaga
47041
       cgtggtggca catgcctgta atccaagcta ctcgggaggc tgaggccgga gaatcgcttg
47101
       aacccaagag gcagaggttg cagtgagccg agatcacgcc attgcactcc agcttgggca
47161
       gtaagagcga aactccgcct caaaaaatac ataaataaat aagaagccct tttcactcaa
47221
       gcattataaa catatttcct acattgcttc taagaatcct aagttttgtt ttttatcttt
47281
       agatettttg tecatetgga atttaageea ttggtgaagg geataaaaet agggatttaa
47341
       gctgggcatg gtggcatatg cctgtagtcc caactactca gtagtctgag gcaggaggat
47401
       cgcttgagcc ctggagtttg agactagcct gggcagcata gtgagacccc catctcttaa
47461
       aaaaacaaac tagtgatcta atttttaggt gaaaagctat ttatcctgac accatttatt
47521
       aattaagccc ttgttaccat ggatgtataa tgtttcctcg gtggtaccca gagtcatcgt
47581
       tatcaccatt gggctttaMt aaatttaaca tttgctaaat ttttgctcat gtgaagggtt
47641
       gaatccttag tgaggtaaat agtcccttga agaattaaaa agggaaacat aagatgttta
47701
       tgtttgaaat tcctaaggct tctttctctg actggaagaa gagggtatgt gagattcagc
47761
       tattggttct gaataatcag tggtgttgat agatgggttt catctgRtgt ttgtcttggc
47821
       ttaaqqttca aqqtataacc tttaqcttaq aqqccaqaat ttaaatcctq atttaaacca
47881
       gatattttct tccttttatt ttgaagacgg ggtctcactc tgtcacccag gctggagtgc
47941
       aggggcatga atacagetea etgeageett gaeeteetta aateagatat titetagaea
48001
       gtatttgttc agggtatttt catgccccct aataaattag gtagtagcat tgactcatgt
48061
       gtgatgtcgt gaagaggtcc tccatttgtc tgaactgtgg ggctttgaag tgacagaaag
48121
       atggctgttt cagttgatct ctattcccgc cactattgtt gcgtaacaca tcactccaaa
48181
       actcagtggc cgaaaataaa gccaatcatt ttattagttc tcatgatatc tgtggatcag
48241
       gagtttggaa gaactactca actggctagt tctggctcca ggcctctcat ggagttgtag
48301
       tcagatggtg gctggagtac agcaaggtgg ctgggggctg gccaggcatc ttcttctcca
48361
       tgtggctgtg tgggctagtt tgggcttctt gcacacagta tagcagctca ggcactcagt
48421
       ctgcttatat ggctgctgac aggttcaggt caagaagtgc agttggtagg cagaaatggc
48481
       cttgcctttt gtgagctagt ctcagaagtc gtgcaacatc actgtgtcac attctgttgg
48541
       taacaaagtg agtcMcaggc cttctcaaat tccaggagaa ggaattagcc ttcatttctt
48601
       ttttttttt ttttttttt ttttttttt tgagacggag tctcgctctg tcgcccaggc
48661
       cggactgcgg actgcagtgg cgcaatctcg gctcactgca agctccgctt cccgggttca
48721
       cgccattctc ctgcctcagc ctcccgagta gctgggacta caggcgcccg ccaccgcgcc
48781
       cggctaattt tttgtatttt tagtagagac ggggtttcac cttgttagcc aggatggtct
48841
       cgatctcccg acctcatgat ccacccgcct cggcctccca aagtgctggg attacaggcg
48901
       tgagccaccg cgcccggcct tcatttctta atggaggagt agcaaggttc taaaaaagtct
48961
       tgaagataaa tattgttgca atcatatttg gcaaatacag tctgccacag tctgaattta
49021
       taaatgcttc ttgagatcca aacaccaaac aagtgcctgt gtggcataat aagtattaca
49081
       ctctacagaa agtgcaaaag gagcctagat gagaaagctg gggattaaag aaaactctgg
49141
       aaagcctttt gaaaaggaga ggattggcat tgggcatgtg ggacagaatg agagggttgt
49201
       tgaaggagcg agaggtggca tgggcacaga ggaagcaata agtgcttcRt gtgggaggca
49261
       agcaaagcac cttgcatacc catagcagga taMgaacagt aagtgagaag gatcaattgg
49321
       aaagtgcctc aaaagctgtc gatattaaat tgttgcagga ggaaatagaa agtcattaat
49381
       ctctcagtgg attttacttt actagcatcc tgagaccaac ttttaaaaca atattaaatg
49441
       aaatgtttta actgaatttt cctgaggtgt gattatagtt tatcaaaatc tgaatgtgaa
4.9501
       ttacttttgt ttcattcagt gtcctgtgcc tgtgtgtcga ggcaggtcat ttactgctct
49561
       ccgcagctct cctctcacag ttacgatgga ctggcagtca atcaagtaag cgatcagact
49621
       gttacataaa aggcaggctt tagatgtcac actgttgaga aaatccataa ttttactgta
49681
       ttatattgta cgttttatct aaatgacaaa gtgtataata gtgtataata gatggtttat
49741
       ttgatgaaga gtttgtatgt taaaataatt ctttttttt tttttttt ttgagacgga
```

FIGURE 3-N

```
49801
       gtcttgctct gtcacccagg ctgcagtgca gtggcgcgat cttggctcac tgcaagctct
49861
       ccctctgggt tcatgccact ctcctgcctc agcctcctga gtagctggga ctacaggcgc
       ccaccacaat gcctggctaa ttttttgta tttttagtag aggtttagtt tagaggtttc
49921
49981
       acceptettag ccaggategt cttgatttcc teacctcete atcteccee ctcaecctcc
50041
       caaagtgctg ggattacagg cgtgagccac cgctcctagc ctaattgtct ttatttgaaa
50101
       tttattctct gtcagattcc agaaaggatt cattatgcaa atattgtgtc ctaatgagaa
50161
       atagttgatt ttatatctca attatgtgat taattgaact ggatataggc cataagcaaa
50221
       gctgtgtgct tcattccata ttgagctgtg atagaaataa tattgttttg aagttttcaa
       ataaagactc cctttgaaat ggcatgtttc attttatgtt ctcaatgttg caatggggca
50281
50341
       50401
       tgtgtatgtg tttttcatcc cataattgat tacatttttt ctagctgtag atctatagct
50461
       catccctaaa tataaaataa tgaatggttt tgaagtcagt gctctctagc aaacctggct
50521
       qaaatgagat ggtcctaaga actaaqaacc tagggaaaag ataagatgat ctgctgctaa
50581
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       tatagtgaga totttacaaa caccocattt tataaaagag gaaatggtta agactottga
50641
50701
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50761
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50821
       ttcacagtca cttacagatc aaacttcttg ttctactctt tcctcccttc tcactactgc
50881
       tcttggagca aggtttgaag tcgtgcaggt taggtggatg ccagcgcctg gcccatgacc
50941
51001
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51061
       atgttcaatg attgtactta cattaattaa gtaaaaaaag ctttaataac atgtgcatgt
51121
       ttttaaaaat tcaatcagtg tggaaaggca cagtccccac aacttgctgt tacattatac
51181
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51241
       gagctgagga cattagaaac atacttgttc ttttatcttc tagactttct ccgttccgac
51301
       attactttaa attgtcaagg tttacctttt gtcttctaat tataattgtc ttccagagtt
51361
       tatttatagg tcatgtctaa caaaaacaat aaacaggcat ttacattttt atgttaataa
       aaatgcccga tatggcattc cccgggataa ataatatgag cttctgactt ctccctccat
51421
51481
       cttttctact cctacttgcg tcttcagtgg tcgaagccag tgctggaact ggctggacag
51541
       tttatccccc cttagcaaaa aacctagcac atgcacaagc ctctgtggat ctgaccatct
51601
       tcacgttcca ctgtctcttc cattttaggg gccattaact ttattaccag aataattaac
51661
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51721
       atggcggtcc ttctactcct ttcccttccc attttattaa cataaaaatg taaatatagc
51781
       tcaacaaaga accaaatgaa tgatcaaatg ccaagcaaag gagctgtaat ttatgtcact
51841
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51901
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51961
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52021
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52081
       52141
       ctgcttgagt ctggatcagt agttctccag acctgcattc ctgcttcatc ctgggatctt
52201
       gcttcattgc atttttcta aggaatattc ccaagtaaat tttcagaaag tatacaggac
52261
       aggtaaaaag ttctaagccc ttgcatgtct qaaaatgtct ttatttgqat cttagtctgq
52321
       ctaagagttt gctagctatt gaagtctatt tggttttaat tttctctgct gtttatgaga
52381
       ggtctggtgc tcatctgatt ctcattcctt tgaggactgg acttttcctc ctctttgtaa
52441
       ccattttatc tatcatgctg tgaaacagtg aaagtgtatc tagttgtctc tatcctgctt
       gattggcagg atcttttgtc ttcaactcta gaatatctga ctgatttctc agcttcctat
52501
52561
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52621
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52681
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52741
       ggcttattcc tgttttatca tggcaatatt ttctcaaaac tcttaggcag tttqttttta
52801
       atactccctg aattattgcc atttaatttt caaatgtctg atgaggaatg agaaagtatt
52861
       tgaagtaggt aggataggtt tcctttqcaa ttttttaqqt aqtaqttttt tctcacaaqa
52921
       ctttacctct aaatacaaag ataggggttt gggctatcag attttgcttt atgaatgtgt
52981
       ttttgaattg gaattgggtt tctcagatgg tagaatgaag agtctttatt ctgaagctct
53041
       gatattetea etgeaeagtt tageteeett cacagagggg atgggtttgt tteettagaa
53101
       cagtgctctg gtttttgcca gatgataaag tacgcattct tcccctaccc acctgtccac
       tcaccttctc caaaaattct caacagctat tccatgactt gtctttcggt tgattactgt
53161
53221
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53281
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53341
       gtgtattctg gactttattt tgttttatcc atcaatactt taccatttgc tggtttcaaa
53401
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53461
       tcattttggt ggacattttg gagggaggct aggcaaatac atatgttcat ttggctatct
53521
       tgaattggaa actgctgaag taattttaga tataccatta aactgttaat aagcaaatct
53581
       gcttttatct tcctcagcat catgtgaacc ctgaatagtt aatatcttgc agaaaccatc
```

FIGURE 3-O

53641		attctaactg				
53701		gagaagcagg		-		-
53761		gctgtgtccc				-
53821		aaggtagggt		_		_
53881		ttttctaaga				
53941	-	tgaaacattc		_		_
54001	-	ctagttgagt		_		_
54061		tacaggttct	-		_	
54121	-	tattagtaat		_		
54181		gttgatggag		-	_	
54241		cctgtttaaa	_			
54301	-	acgttggggg			_	
54361		cagtccatgt		-		
54421	-	gtttttatat		_	_	
54481 54541		atatgaaatt				
54601		gaggccgagg tgaaaccctg				
54661		atcctagcta				
54721		agtgagccaa				
54781		taaaaaaaaa				
54841	_	cactcattca	_			
54901	-	tgacagagaa	_			
54961		gctgatctct	_	-	-	
55021	_	caacggaaga	-	_		_
55081		gttgctcata			_	_
55141		ttccatgcta		-		
55201		gttaagagct		•		
55261		cagtgtgatc		-		
55321		ataataagac				_
55381		aacataacta				
55441		ttgaagaaat	-	-	_	
55501	agaggtaaag	aactgagaac	gttttgaaat	gcattgtatt	ataaaaagtg	atcttggcca
55561	ggcacagtgg	ctcaagcccg	taatcccagc	actttgggag	gccgaggcgg	gtggatcacc
55621	tgaggtcagg	agttcgagac	caaccggacc	aatatggtga	aaccctgtct	ctactaaaaa
55681	tagaaaaatt	agctgggcat	gatggcaggt	gcctgtaatc	ctagcttcct	gggtggctga
55741	gacaggagaa	tctcttgaac	ctgggaggcg	gaggttgcag	tgatctgaaa	tcgcgccact
55801	gcactccagc	ctgagcaaca	gagcaagact	ctgtctcaca	aaaaaaaaa	aaaaagtga
55861		cttttctgtt				_
55921		aatatgttaa				
55981	-	atcctacttc	-	-	-	
56041		cttagcgttg				
56101		ctggtcgaca			_	_
56161	_	ttttagtggt				
56221	-	cttcccacag	-			-
56281		tttcatggtc				
56341 56401		ttgtaagtca		_	_	
56461		gttgcttgca aaatactttc				
56521		ttatgtttta				
56581		aggtgattct				_
56641		caggtgaccc				
56701		gaaagccagc				
56761		attaaacacc	-			
56821		atagaaaggt	-			
56881		gtgagtgcca				
56941		gggaataaag				
57001		ttgtttataa	_	_		
57061		tagagacagg				
57121		tgtagcttca				
57181		actaaaggtg				
57241		ggtctcactt				
57301		tggcctccca				
57361		ccaaggcccc				
57421		ctgaaagact				

FIGURE 3-P

```
57481
       attatacctc tctggcatta acatcaacac agattttaag tctaataaga aacattttac
57541
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       ctacaacctc ttgcatccca aacattcctt.tctattgatc ccaggtcttt agacaaactc
57601
57661
       aaccaattgt caaccagaaa atgtttagat ttacctgtag gctggaagcc catgctttga
57721
       gttatcccac ctttctggac tttctggttc tacaaatcac tgcacctggc ctcattttct
57781
       tatttaattt gaccttttga cttgaactga aaaaaatgaa attttatccc atcttagagt
57841
       attatatact gagttcactt ctcagtctcc tttcagtgac ttggctgcac agtctcaaga
57901
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57961
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58021
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58081
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58141
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58201
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58261
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58321
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58441
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58501
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58561
       ctgacctcag cctcctgagt agctggaact acaggcatgc accaccatgt gcagctaatt
58621
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58681
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58741
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58801
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58861
       tgcgatctca gctcactgca acctccacct cccaagttca aacagttctc ccacctcagc
58921
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58981
       tgggctttta aagtgactag acactgccag tattaaaqca aaaacaaata tttctcgttt
59041
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59341
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59401
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59461
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60181
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60361
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60481
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60541
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60601
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60661
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60721
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60781
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60841
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60901
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60961
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61081
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61141
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61201
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61261
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```

FIGURE 3-Q

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61321
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61381
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61441
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61501
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61561
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61621
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61681
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61741
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61801
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61861
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61921
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61981
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62041
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62101
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62161
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62221
       tgaatagagt atggcatgta agccacacta agccagggtt tttaaaaaacg agactaacag
62281
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62401
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       ttagccagtc atggtggcat gctcctatag tcccagctac tagggaagct gaggttgttg
62521
62581
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62641
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62701
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62761
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62821
       taaacagttc caggtaccgg ggcttaaact atcacaaaga gataaatgta ggggttttgg
62881
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63061
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63481
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63901
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63961
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64021
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64081
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64201
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64261
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64501
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64621
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64681
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64741
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64801
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64921
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64981
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       tgatccaccc accacacctc ccaaagtgct gagattacag gctacaggcg tgagccacca
65041
65101
       cacctggcct acttcagaat gaatagtttt gccgtattgt aactgaactc attggttttt
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FIGURE 3-R

```
65161
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65221
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65281
       acatgtttcc atgcatgtgt caggcagtgt ccagattcca gtccagttaa ggtcgttcat
65341
       tccttctggt ttgccagtga cttccatatt ctgaacccag gacctggtag ccacatttga
65401
       cacagttaat cactccctcc tccttgagac cSttgaaact ctcattggtt tccaggccac
65461
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66661
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66781
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68881
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FIGURE 3-S

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FIGURE 3-T

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FIGURE 3-U

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77581		tgtgctttcc	•		_	3 33
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78361	_	aagatcattg	-		, , ,	
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78481	-	ctggcaagtc				_
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78781		attatgctgt				-
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78961 78961		aaggaagctt attatacctg	_			
79021		tgactaatta	-	_		
79081	J J	atagctatcc		-		, ,
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79201		tctttccttg		_	-	
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79441		atgaatcaaa				
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79981		ttaatatata				
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80101		ttttctgact				
80161		ctgttaaatg				
80221		atagcacttc		-		
80281 80341		ttagcttgat tttttacttt				
80401		tctgtaagaa				
80461		ttgagagatt				
				,	,	



FIGURE 3-V

```
80521
       aaaccttttg atgttttctt ccaggttgct gattttgaaa attttattgg atcactaaat
80581
       gaccagggtt acctcttgaa aaaaggccca aaagtttacc agcttcaaac tatgtaaaag
80641
       gacttcacca agttagggcc tcctgggttt attgcagatt aaagccatct cagtgaagat
80701
       80761
       acacacacag tcaaatactg ttctctgaaa aatgatgtcc caaaagtatt ataataggaa
80821
       aaaagcatta aatataataa actaatttaa gaagtgataa agtctccaga tgcagtagct
80881
       cacactgtaa tcacagtgac tcaggaggct gaggtgagag gattccttga ggccagggtt
80941
       81001
       taaacttagc tgggtatggt ggcacatgcc tatagtctca gctacttgtg aggctgaggc
81061
       aggaggattc tttgagccca ggagtttgag gttacagtga gccacaatca caccaatcac
81121
       tgcactccag cctgggcaat aaagtaactc ttgactcaaa aaaataaaaa aaattgtagt
81181
       ggtagccatg tgttaattgt taaataaatt ctccaaaggg ctaaaagtaa attacttata
81241
       aattttttat agttgtattt ttgacctgcc ttttatatgt atgaatattt catagttttg
81301
       catatcagat gtaggcatac agacaaatac ataaaccaat gaatatatta catattctgt
81361
       gttccaataa aactttattt atggacacta aaatttgaat ttcataaaat tttcccatgt
81421
       caagaataca aaatacttga gttttgtttt tagctattta ataataggtc tcatttattc
81481
       cacaggctgt agtttgtagt cttgcttgaa acaatagaaa cagactgatt aagcaggaga
81541
       agttttttga aagaattttg tttggctcac ggaattatYa gaaggcaggt gaaccaggag
81601
       ggtaagcttc cagcagcaat ttgtaaaacc atgccttaga attggactaa ggaagaagct
81661
       gctgacactc cactgccaca cagggcactg gaagaaagtg ctgctgcctc cctgcccac
81721
       ctttqccact tctqcagcaq gaatagqtaq aaqaatqccc ccacccqcac cqqaacaqca
81781
       acaaaaggat tctgcatgag atgcctccct aaattgctga attcaaaaaa gaagttgcat
81841
       acaaagacat ctgattgaaa aagggtatgt tatatgcccc tttcataggc tgctagggag
81901
       ttttcctqqt tctactttca qqtqqtqqqa tcaataaqac caqaatttct catatqttqt
81961
       gagaggattc aaatgttaca gggttgccag ccaaactatc aatcatgtat aaatccaaca
82021
       aacactttgt aacatacaag aactcaggaa atgtgaacca ttgttggaga atctactaaa
82081
       atacggcttc ccgcaaacga agatgaatgg aaaatgtaaa taaaaagaac tggcagtgta
82141
       tatcagatgt ttaactatag gaccagaact aagatgtgga gactattgcc atagaccaca
       atgtaaattt ttaagtgagg aaggaaaaat caggaatcaa aaggggccag gtgcagtggc
82201
82261
       tcacatctat aatcccagag ctttgggagt tcgaggcagg aggatcactt gaagccagtt
82321
       ttgagaccag cctatgcaac acattgagac cctatctcta caaaaaatag attagctggg
82381
       cacggtggtg catgcctatt gtcctaccta ctgtggaggc tgaagtagga aatcacttga
82441
       gcccgagagt ttgaggttac agtgagctat gattatacca ctgcactcca gcctgggcaa
82501
       gagagcaaga ccttgtctct taaagaaaaa aaaaaaaaat ggagaaagta gatagtagta
82561
       taaatatagt gaaRtcttta aaagctagga gttaaaagat atttaaagca aataactcag
82621
       gcatggtggt gtgtgcctgt agtcccagcc actaaggagg ctgaggcagg agaatcactt
82681
       gaacccqqga ggcagaggtt gcagtgagcc aagatcgtac cactgcactc cagcctgggc
82741
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82861
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82921
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82981
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83041
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83101
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83161
       ggtgtcccca cacctttcaa ccactgtagc aacaaagctc tggcctaggc ttttcacttg
83221
       cttctttact gcctgactga ctttggtgtt tcctcatgtg gcctggtgtg gcatggcacg
83281
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83341
       ttaaaacaaa tcctaagtac aaatgtcaga acagaaacat gcaaagcaag aaaacattac
83401
       83461
       gctctttttg ctcaggctgg agtacagtgg cgcgatcttg gttcaccgca acctccgcct
83521
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83581
       ccaccatggc taattttgta tttttagtag agacggggtt tctccatgtt ggtgaggctg
83641
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83761
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83821
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83881
       atgggggtct tgttctgtcg cccaggctgg agtgcagtga catgatcaag ccgtgatctc
83941
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84001
       caccatgccc agctaatttt gatttttagt agagatgagg tcttcctttg ttgcccaagc
84061
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84121
       agcctcctct cttttccaat attgtgttaa gtaaattgta ttggtggtaa tcaacttgat
84181
       catttcattt ttaggataga gatatcaagg tgagggtata actgaacgag aagaggaata
84241
       aacaccaccc tgtgattgat ggatctttat agctctcctt tgataaagaa gggaaatatc
       gtacttacat tagcatgtta tagttgctgt tgttatacag aagaatatta aacaatattc
84301
```

FIGURE 3-W

```
84361
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84481
       tcctagtgtg ccttcctata atgcaggggc tggaaggtga gaaaataacc acatttccca
84541
       qactcccttt qcaqqtaqat ttccaqatgt qaattgggtt ccactgatca gacacccatg
84601
       tgtgagattt ggaatgcaga actgaggaga gagccatctt cctcttgctt gtgttctggt
84661
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84721
       tgaggcaagt ggcgtggtgg atgcaaccct gattcttcac ctttctcatt attgtggggt
84781
       agcagcgcct ctggcaaqcc agacagacct gcagtgtttt tctgggagtt aattctggag
84841
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84901
       tttacagtcc ttttaaatgt ggctagctac agtagtttgt gtttcctgca actaatcact
84961
       catacatctg tatctaaagc actccacctg ggtcatgtac tatacttaaa attataaggc
85021
       aatattaatt cacaaaacta cctactcgtt ttatttaacc ctcagaagaa ctgaaaacaa
85081
       aagctatacc aggcttqctc tagaqcgtqq qcttqggaat qqaaaqgcag agtgcaccta
       ttgaattcca tcatcagttt ttctatacca tggagttact taccatgtgt atacataaca
85141
85201
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85261
       atcagaatta ttcttagtac atagacttgc aaagtcactg aataattcSt tgggactaca
85321
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85381
       gagtatatat gtgtatatat atacacacac acacacacta tatagagtat atatatacac
85441
       tccatataca gtatatatac tagtgtgtat atatataca actagagtat acacactcta
85501
       gagtatacac tctataaagt atatatatta tatatactat atattatata tactatatac
85561
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85621
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85681
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85741
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85801
       tgcaaactcc tcttccttag agaatgtata ttatctttag tattaaagtg actcttgtaa
85861
       qtcctqaqaa acacctcqqa acacctqcatt cacqtqtttq ctaqqcaqaa tagtacccac
85921
       cctgcaagac atcacatcct aatgcccaga acctgtgaat gtgttaggtt acatagcaag
85981
       gggaaattaa gatggctaat caggtgacct taaaataggg agatcatctt ggattatctg
86041
       catgggtcca atataattag aaagaacctt taaagtggaa gagggaggca gaagagagcc
86101
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86161
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86221
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86281
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86341
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86401
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86461
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       agccactgtg cccagcctca cagttaaggt ttttaaacaa tctgatttaa ctgaataaaa
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86581
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86641
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86701
       86761
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86821
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86941
       caaaatataa acagggacta tgaggtatgt acaggaaatt aatagctgaa gaatatttta
87001
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87061
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87121
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87181
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87241
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87301
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87361
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87421
       tcattagtta gattctcata aggaacgcac aacttagatt cttcgcatgt gcagttcaca
87481
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87541
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87601
       gccatggatt ggtactggtc cacagcccag gggttgggga cccctgtaac aaaaggaaaa
87661
       caagattett aaatetttac aggaaggagg aatggaatgg aaaataaage tagttgtaca
87721
       ctaaatgatg ttaacaatcc ctttatcacc tttaaaatat gagcagagag gaaagaaata
87781
       ttaaaaccaa ccctttttac tttcttattt gtagataatg cctgccttac gagaatgtta
87841
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87901
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87961
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88021
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       tgactgggtg tccacactaa gttcggcatc aacatgttga tctgggagtg gtggaccacc
88081
88141
       aggtttccta aggagggatg aacctgccca ggccagaaat ggagcaggtc aaaattcccg
```

FIGURE 3-X

88201	tcctggtcag	tagtgggatc	gccccgtgaa	aagccacggc	attctagcct	gggcaacata
88261		gtctcttaca				
88321		ataatttaaa				
88381		aggagctatg				
88441		tcaaatctta				
88501		ttacaatgat				
88561		gtttagtgcc				
88621		gaatttttt				
88681	-	aatctcggct				
88741		cctgagtagc				
88801		gtagagatgg				
88861	-	gtggtcctca				
88921		cggcctccca				
88981	ttttaatttg	atttaacttc	caatcaatat	ttacataaga	ctcatttgca	aaactgcctt
89041	ctttacatta	tcttcttctg	gttttaggaa	acaaaaagta	gcccaagttt	attgtgtcct
89101	agactaaata	acacaagtaa	cactacatta	cactgcatat	ctgatataag	aacgcagtac
89161	acatatttct	agactttgtt	catttatccc	caggcagaaa	atattcataa	tagatttgga
89221	ataagatttt	cttctcaaaa	agcttaaact	tcaaatagaa	gtgataagtg	agaaagaatg
89281	attgggttgc	agaattttca	aaagcctaaa	aacagcctgg	gcatggtggc	tcacacctgt
89341	aatcccagca	ctttgggagg	ccgaggtggg	cagattactt	gaggttggga	gttccagacc
89401	agcctgacca	acatggtgaa	atcctgtctc	tactaaaaac	ataggagtta	gcagggcgtg
89461	gtggcatgcg	cttgtaatcc	cagctgcttg	ggaggctgag	gcaggagaat	cgcttgaacc
89521	tgggaggcgg	aagttgcaat	gagccgagat	agcgccattg	cactctagcc	tgggcaagaa
89581	cagggcgagg	attcatctca	aaacaaaaca	aaacaaaaca	aaaaaacaaa	aacagaaagc
89641	ctaaaaacag	gttccaagaa	gttgtagcaa	agaggtaatt	tgttccaata	tacagcacag
89701	tcatacacag	cactttgcaa	cttaaccaag	gaaaacatta	aaagtggcaa	gacaatacta
89761	ccctctaggg	gccaaatttt	tatgttcaca	actcagcaaa	ggatcaatga	aaggatgaac
89821	taaacagtta	ataacaggcc	agttattcaa	gattgaacaa	tcctttctct	tttcacgttc
89881	tcttggggta	agcactacat	gattgactac	agaagttggg	ataagacacc	tgaccagtac
89941		cttatgaaaa				
90001	aacttcatga	aacgtagaat	ttatatatag	atttttattt	atattttat	tacagactta
90061	ctattctaat	tttttcccca	tttgggaaaa	aagttcagtg	acagatattc	ccagtccctt
90121	cagacatatg	aggtgcctgt	gtgtttaatc	tacttggata	gaaattatta	cagaattcat
90181	aaaacaggaa	atgaacatta	taaaccagtt	actaactgta	gaatattttg	gtttcctctg
90241	Ycccctgccc	tgctctaaac	tctacttcac	tgggtttctg	cattttctcc	atcctttatc
90301	-	ctgttcattt	_		agaaaatgag	atcaaagact
90361	gatagctgga	tgttctcccg	tcttaaaatg	ttagggaaac		

FIGURE 4-A

>11:10442001-10539300

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61
       ccaggtctca ctctgtcacc caggctggag catagtggtg tgatcatggc tcactgcagt
121
       ctcaacctcc tgggctcaag cRatctccct acctcagtct cccaagtagc tgggactata
181
       gttgtgtgcc accatgccag ggtaattttt ttatttttat tttttgtaga gatgggtctc
241
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301
       cccaaagtgc tgggattaca ggtgtgagcc actgtaccca gcctctttat tctttaaaat
361
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421
       tatgattatt gctttctaca tgttctagtt ttatttataa tgtgggggtt taaaattttt
481
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541
       gatggggaga aggagaaata gatcagtaac tagaaaagga gaaacattta gaaacaaagt
601
       atttgatggg ttctgaactt tttatgcaac ttgaccacaa attcttaagt tcatctggaa
661
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721
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781
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961
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1021
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1081
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1141
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1201
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1261
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1321
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1381
       cccactctga gtcttggcac ctcccactct ctgagtctcg gctcctccca ctctgagtct
1441
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1501
       gagteteage teetetete cagagactet teetetttee etgtettgge teetteette
1561
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1621
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1681
       agtcctggac agacaaatga tgagtttcat tcatagactg aggaagcaat aaggaaaaaa
1741
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1861
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1921
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1981
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2041
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2101
       ttcagcctgg gtgacagagt gagactccgt ctcaaaaaca aaaacaaaaa aaaaggcgca
2161
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2221
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2281
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       cattattca gaacaaaagt atatcctagc tgggcgtggt ggctcacgcc tgtaatccca
2341
2401
       cactttgggg aggctgaggc gggcggatca cttgaggtca ggagttcaag accagcctgg
2461
       ccaacacggt gaaaccccgt ctctactaaa aatacaaaaa ttagctgagc atggtggcRc
2521
       atgcctgtag tcccagctac ttgggaggct gaggcaggag aatcacatga acctgggagg
2581
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2641
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2701
       cacagagaag tctgaaatac acaaaaaagt ctttataatt aagtggtctt cactttttt
2761
       ttttttttaa atacacagaa ttttgctctt attgcccagg ctggagtgca atgacacgat
2821
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2881
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3061
       3121
       tcctttagtt tttaaaattt aaggacttaa ttctcttcca cataaaaaag tggcccaatt
3181
       tcaaggactt catgtctaaa acaccaaaag caatggcaac aaaagccaaa atagacaaat
3241
       gggatctaat taaactaaag agcttctgca cagcaaaaga aactaccatc agagtgaaca
3301
       ggcaacctac agaatgggag aaaatatttg caacctactc atctgacaaa gggctaatat
3361
       ccaqaatcta caatqaactc caacaaattt acaaqaaaaa aacaaacaat cccatcaaaa
3421
       agtgggcgaa ggacatgaac agacacttct caaaagaaga catttatgca gccaaaaaaac
3481
       gcatgaaaaa tgctcatcat cactggccat cagagaaatg caagtcaaaa ccacaatgag
3541
       ataccatctc acaccagtta gaatggtgat cattaaaaag tcaggaaaca acaggtgctg
3601
       gggaggatgt ggagaaatag gaacactttt acactgttgg tgggactgta aactagttca
3661
       agcattgtgg aaatcagtgt ggcgattcct cagggatcta gaactagaaa taccatttga
```

FIGURE 4-B

2721						
3721			gtatataccc			
3781	cacatgcaca	catatgttta	tagcggcact	attcacaata	gcaaaggctt	ggagcctacc
3841	caaatgtcca	tcaatgatag	actggattaa	gaaaatgtgt	cacatataca	ccatggaata
3901	ctatacaacc	ataaaaaaaa	atgagttcat	atcetttata	aggacataga	tasaactaas
3961			tattacaagg			-
4021	cataggtggg	aattgaacaa	tgagaacaca	tggacacagg	aaggggaaca	tcacacaccg
4081	gaacctataa	tagaatccaa	gggatgggag	agggatagca	ttaggagata	tacctaatqc
4141			gcagcatacc			_
4201					_	_
			actctaaaac			_
4261	aaaaccaatt	tgcatttatg	tagatgacat	gttattgtct	aaaccaaacc	ttttttggta
4321	tttgtttgct	tttacgtcag	gctttgaagt	tgctaagaaa	tttgctctgc	cctccctact
4381	ctcctcgaag	gagatgtgac	ctgttccctg	gattacccta	aggatccacc	accettcagt
4441			Rggaaagcgg			
4501						
			caccacacgg			
4561			ccctgacaac			
4621	ggcagctctg	tgaatccatg	tgctcatctt	tcctgacatg	agcctctccc	ccttgcacaa
4681	tgcaatgggg	tttttactat	ccacctggag	cagttgaggt	ccagagaggc	caaggaaata
4741	agcgagaagg	acaacagcag	gattcaaagc	caaatgccac	atagcgtaca	tacctaaata
4801			agccctccct	_		
4861				_		
			aagtatcttg			
4921			gattcatgta			
4981	cagttaattt	tctcagcaaa	tcatccactg	gtccatatag	cagcagcctt	agataggcaa
5041	atcggtgttc	cctttgccct	ctttgcctcc	cttatgaccc	cgtttctttg	cactccctgg
5101			ctgttataga			
5161			gtcagaggag			
5221						
			ggaggatcgc			
5281		_	tcttaaaaaa	-		
5341	gtgcctgtgg	tcctagctat	tcaggaggct	gaggtaggag	gatggcttga	gtccaagagg
5401	ttgaggctgc	agtgagttgt	gacagcacca	ctgcaStcca	gcatgggtga	cagagcRaga
5461			ccaaaaccca			
5521			gctaacagag			
5581			tggtggggtt			
5641			caccgctcct			
5701	gatgtgtcag	aatcccgcct	gtccccacac	taagcacagg	gtctgttgca	aggggaaagc
5761			gaatgaaaat			
5821			tccttcatat			
5881			attcatccat			
5941			gggccagaca			
6001	gctaggatgg	ggtcgacaca	gggcacggtg	gggacgcaga	ggaaaagggc	tggatccaga
6061	cacggcaatt	gggaaaagct	tgaagttctt	tctagaagct	gtaaagttcc	gggccagagg
6121	tagggacagg	gcgagggag	ccagcagaga	gagagagetg	acctacaata	gggccaacaa
6181			ccaggaaggg			
6241			gtgctgccat			
6301			tttatctagg			
6361			gtccaatttt			
6421	aagttgtggg	ctggctgcat	caggggctga	attctgggct	catgcagggc	catggattgc
6481			aggtcatgga			
6541			ctgaggaaca			
6601			ccagttgacg			
6661			agcacaggtg			
6721	gcacagtgca	gccaaggaga	gatgcccgaa	cacacaggca	tcacacaggt	ggactgctga
6781	gtgggaccct	gatagcttgt	cagggctcac	cactttgaag	ctgtctggag	acctgggatc
6841	cqaqaqaqac	tcqtttttaa	aagccagctt	aaaaaaaggc	gtagccaggt	ttcagggaga
6901			gtccactggc			
6961			tctccttgca			
7021			tacagctcct			
7081			ttccttgggg			
7141	aggctcacta	ttggtaaaat	cagaggtggc	tagggggtca	gagtcacatg	tatgaatatg
7201			aggtcccatg			
7261			agacagctgc			
7321			ggccagccat			
7381			tctttccaca			
7441			gcctatgtgg			
7501	agtgttgatt	aaataggatt	ttgttggcag	gccttggaac	gagtggggag	ccaaacacca

FIGURE 4-C

```
7561
       gtggtgtggc tagctgcaac ccttggggag gttatcagaa ggcgtgtgtc atagatcctg
7621
       gacagggtga cctctcacag ggtgtcagga tcctggggga aggatgggcc cttaccaagg
7681
       atggtcttcc ttaccccaag gttgcttcct agacagaatg tagggaaggc ccaggcaggg
7741
       cagggaggaa gagcctctct ctcctgagtc tcacctcaca ctaaggaatc acactgagtc
7801
       ataaaatggt gttaggggaa qaggcctttc tctgaagctg gagaggaggg tccccaaggc
7861
       aggccagaga gccagttcct aaaggactat aaggggtagg acatttggtg tctccttggt
7921
       catccgtaat cctgctgaac aatgacgctt tccctcattc caccatcttg gtgtgggaag
7981
       ggatacttat gttttcaag atgctgtcag ttttgtgtgc accttgctgt ccctgcagct
8041
       gtctctccag cacctcatgc ctggagtcac tgatgttccc acttccaggc ctgagcccat
       ccgggagcct gagccaatac tgaaaacagc cccaatccca ttccatgggg cttggagtca
8101
8161
       tcttcctqct qqtaqcacca qqctqqqctt cctqctttqc tqtqttqqta tatccataqq
8221
       actggggtct cgccttggtc tttcttccta gttcacttgg ttatatttcc ttgaaccctt
8281
       cctgtgggtc tctacccacg ttttaagcct tcctggggct ctatacctgc ttataaactt
8341
       tggcccattc ctccagccac tgatgaaggg aaccctgggc atggtgatga accttcacct
8401
       ggcttcatgt tacctcccat ctctatcatc tctgccaact ggcctggcta tctttaatag
       tgatgtcaac tagggatgac ctctgaacag tttaccagcc cattttgcag ctgggctgga
8461
8521
       acctgtggct cagggttagt gaggaggctt tctccatttt ctttgttctt ctccttggcc
8581
       ctacattctt tctccatgag cccattctaa tgacacttgg catgggctat gcttcctgtc
8641
       ccactgagcc atgcccagga gtcttctctc ctttccattt gtctcccttc tgttggttgc
8701
       aaaggtcatt aggagtccat tgacagcagc ccatccccca gtgagtagat ctcctcatgt
8761
       actggtaagg gttactgact gcaagatcac attcctcatg tagacatctc ccagagtatt
8821
       atgggtcatc ccgcatcagc tcatcaaccc atgtgattaa cctgagtcaa ggcaactctg
8881
       gccaaagtga agaaggagaa agtcagacta tatatattct ttattttttg gttttaattc
8941
       tecetgteat gatgeaggea ggtattacet gageacatge aageetgaet tateetaate
9001
       tctttctcat ctaggtgcta aaatgacatt ttctctgaac ttgggactat agaattcttg
9061
       ctagtgcagg gtctgttctg ttcagtcacc acccattcct cagacatggt ttctattgcc
9121
       9181
       cacccatcca gtcatctaat aaatgtatct gccaagtcct gtgtaaacaa ctcaggcatg
9241
       gtttcttcct gcaaggagcc ttgtgtctgc ctcaagccct gcctctgtct ggcaggacct
9301
       ggactgtctc cagctggact tgctaatatg tctccagtct aggctcattc ttatggggat
9361
       agcagacaat ggcagggaga ctggcaataa acatgtaaac atataattaa ttgtcaactg
9421
       ctaattggct taatgttata taaaqaataa gactgcaaaa gaaaatgaca acaaattatg
9481
       agggcaccta cttaggaagg gtattaggag taggctttct gaggaagtga cctttaagct
9541
       aagatctgaa ggatgtcata ggggaaaaaa atgtgcagag aacagaaaac aaaaagtgct
9601
       aaggccctga ggtggagaag gaaacatgtt ccagaactgg aaagaagctt gatgtggctg
9661
       aagtWcagca aatgagaaag tggcataaaa tgagaccagg gaagaaggca ggagacatat
9721
       tcatgcacag ctttttggcc ttggtgagga agttataaaa ggaaagagct aaagcagaaa
9781
       ttgatgtgat ctgatttaaa agattgctct agctgctacg tggaaaatag attggagagg
9841
       gggtcacatg gaagcaagga actgctggtc ttttagccaa gggatgatgg gtggcttaat
9901
       ttgatgggac agcactggag acaagtttgg ggtatagagt aggatgtggt gggcaaggga
9961
       gacttcatgt acttttgcca catttctgct tgagaaactg agtgaatagt gtaggggtgg
10021
       gttgcccctc cacacctgtg ggtgtttctc gtaaggtggg acgagagatt tggaaaagaa
10081
       aaagacacaq agacaaagta tagagaaaga aataagggga cccggggaac cagcgttcag
10141
       catatggagg atcccgccag cctctgagtt cccttagtat ttattcatca tttgtgggtg
10201
       tttctcgaag agggggatgt gtcagggtca caagacaatt gtggggagag ggtcagcaga
10261
       caaacacgtg aacaaaggtc tttgcatcat agactatgta aaggattaag tgctgtgctt
10321
       ttagatatgc atacacataa acatctcaat gctttacaaa gcagtattgc tgcccgcagg
10381
       teccaectee ageectaagg eggtttttee etateteagt agatggagea tacaateggg
10441
       ttttataccg agacattcca ttgcccaggg acgggcagga gacagatgcc ttcctcttgt
10501
       ctcaactgca agaggcatgc cttcctctta tactaatcct cctcagcaca gaccctttac
10561
       qqqtqtcqqq ctqqqqqacq qtcaqqtctt tcccttccca cqaqqccata tttcaqacta
10621
       tcacatgggg agaaaccttg gacaatacct ggctttccta ggcagaggtc cctgcggcct
10681
       tccgcagttt ttgtgtccct gggtacttga gattagggag tggtgatgac tcttaaggag
10741
       catgctgcct tcaagcatct gtttaacaaa gcacatcttg caccgccctt aatccattta
10801
       actctgagtt gacacagcac atgtttcaga gagcacaggg ttgggggtaa ggttatagat
10861
       taacaqaatc tcaaqqcaqa aqaatttttc ttaqtacata acaaaatqqa qtctcctatq
10921
       tctacttctt tctacacaga cacagtaaca atctgatctc tcttgctttt ccccacaaat
10981
       agtggtgtct ttaactgaga tatgaagatc acaagcagag aagcttccga gttcagggag
11041
       gaaatccaga gttcggattt gagcatgtta agtttgagat ctccgttaga catccacgaa
11101
       ggtcaggtag gcacttgaat aaatgagact ggaactcaga agaggcttgg gctggagcga
11161
       aagctgaatt gtcagcatat ggagaatagg taaggtagga gggacaccct cttatctgtt
11221
       tccctgggag ccttgcacta aagctaaggt ctttcaaaca gacttgagta aaggcatcag
11281
       gggtggggga cctggaatac ccttccaata tgagggctct tgggttcctg cagggccagg
11341
       actgtgcata atagtgattc aactggggca ggagaacttt cttggctcca ctggggctgg
```

FIGURE 4-D

```
11401
       cctttcttag gattgtttta aattccattg attattcttt gctttgctct ggaaacaact
11461
       actctttatg taagccctct ctgaaagtga caaatcatgg aaaaattctt ttggatttga
11521
       atgcagtgaa ggcagagagg gcgcatcttg ctttgtggtg tggaggccat gctgaggatg
11581
       tgccgcgggc cagagagctg gaaagtgggt tcaggcagcc aggctgagtc aacccttcac
11641
       ccctgagaaa cccacgcaga gcatcacgtg atgtggagga acaggggcac tgagtcagtc
11701
       taatattcaa qqcaqqaaaq qtaqaattqq aaaqqqaqqa qaaaatqtca ttttqqtqtq
11761
       gcaggagaac acgacatgct tctctggctg ccaggaagaa tatttcctgc ctagggctct
11821
       ggattctcta tggctgagct ctctgggata gagaaggagg gagatgttca ttcccatttg
11881
       gagatgtggg ctgttttctt ggggcatctg ggctggtact tgtgaaaagg ataggacttc
11941
       12001
       aataaaataa aaaagttccc aacttgacct cagggacctc cttcccccta ccatggagat
12061
       tcctgctgcc actcttcttg gctttagagg acacacttga ggaagcagag tcttttctga
12121
       tgagctcctt gtccctgctt accagatgta gtgattcctg agctccttca ggggtgaagt
12181
       gtctcagcag ttccttcctg aatcgtgcct ctcctctct ctggctttct ctctcagctc
12241
       tctcttcctt tgtcatattt ttatttcctc actttccctc ccacagtgga atgaagcacc
12301
       gtattgagta gaggctgttg gtgttggcca gagctgtaga atgctgatgg aggaacagga
12361
       agtaagtgag gaaggggcaa gggtgcttct aagtgctctg tgcactgacc cagaaggtcc
12421
       tttttggagc cacagggctg tggtcctgag catgaaagag gagggctggg gtgaggatca
12481
       acactccaga gggccaggaa agggggagcc actgtctcca tgggacattt ctggaagaca
12541
       gttttcgagg tggtatagtg gcacgacagt tattaagata atgatgaaaa aagattagag
12601
       gaagcagcat tgaaagcagc agcataaact tgtggagatg ggggtcagtg tggccccgat
12661
       ggtcctcctc cctccatcac ccttctccca cccctaggtg tgtcaccctg aagctaaaac
12721
       tggtcctgta tggatgaggc aacataaatg ggaggcaagg cagcagctgt tgaaaattca
12781
       atcgcggagg cctctttggg gcatatgtgg cctaggagtg gctggcacag aagtgctgga
12841
       agtaaaacca cccctgccc tttcttttct ctctacctct tatgagtttt atggagttag
12901
       tattcctccc ctggacaaaa actccaaagg ccttccgact tcctcagtaa gatccaaagt
12961
       tetteteatg gaettaagae eetetatgae ttggeeteee acceettete etggaetete
13021
       ttttgtgtac tctattttgg ctgcactggc ctccttgttc ctggaagatg ccagcgtgcc
13081
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13141
       gcctggctca ctccctcact ccttctaggc ctccgttcag aggctccctt aacaaagagg
13201
       ctttctctac acaccccaca tcaattagac actttcttca ctcacactcc cactcgcctt
13261
       accatgatta attittette gtagetettt ateateacea cataacatat tetgtateaa
13321
       tetetttaet gtetatetet etetgeetga atgteaetgt tttgtttget getgeattee
13381
       cgatgcctag aagaatgtct ggcacatgca ggctttcaat aaatatttgt tgagtgggtg
13441
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13501
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13561
       tgatagtatt atctcatcag tcaggggacc gcctgagcat taggccacaa gccaggctat
13621
       tcctggaagg attgcaggac aggcttgcag gatgatgcac aggctggtac cctggggctc
13681
       ttcatgtttg agaagagagc catggcactt ctgggatgtt cacagtgacc tcactcttat
       ttgattttcc ctggaagaca cctcaggcta cttccttctc tgaggatgaa gtagaggaaa
13741
13801
       ggagtgtatt attagtcagg gctctctaga gaaacagaac cagtaagata tctacccatc
13861
       caccctattg gatatatatc ctatcgagta tatagataca cacatacata caggaggaag
13921
       aqaqqqqqq qqqqaaqcq aqqqaaqaq aqqqaaqqaq aqaqaaaqaq aatttqtttt
13981
       agggaactgg ctcacatgat tgtggggttg gctagtctga aatttgtagg gaaagctggc
14041
       aggctggaaa ctcaggaaat tcctatattg cagtcttaag gctgaattcc ttctgtttca
14101
       agaactctca gtctttgctc ttaaggcctt aaactgatga gctaaggccc acggcagtat
14161
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14221
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14281
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14341
       cagtagctgc agtctcttag aattaggagg agctgccaag gtgccttatc tcattcatgc
14401
       ctctggtgga gtcctcctgt ggcaagtcac accagtgagc agtggggccc catcaggaag
14461
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14521
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14581
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14641
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14701
       ccgtgataaa tactatgaag aaaataagac aggacaatgg gattggtaat gatggggtct
14761
       cacctttctg aggaggtgcc atttgaactg agaatgaggg atgcgtggga atcagtcatg
14821
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14881
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14941
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15001
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15061
       aatctcacat tttataaaag gtcactctgg ctgccatgta gtgaatggac cacacaggga
15121
       aagagtggaa gcaggatgcc ttgttggaga tgtcacccaa gccagagatg atggtggctt
15181
       ggagcggtgt gacaacagcg cagatgaaga aaatatacat ttggtgcatt tttggaggct
```

FIGURE 4-E

```
aaaatgacag gcctttttga tgaattggat gtggcagatg aaggaaagag gaatgaagga
15241
15301
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15361
       agaagcaaca gctggtggag ggtgaaggtg ggcaatcggg tttgtaatgc ctcttaggta
15421
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15481
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15541
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15601
       ctgagcttct cagctctcct tgtatcttga gcccatggct cctctctct tgaggcagtt
15661
       cctgccttct gttgaattca gctcagttcc acaagttctt atggacacca actcagtttc
15721
       agatecatge tggatgttgg tageacaagg accageaagg catggetagg ecagetteea
15781
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15841
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15901
       aagaggttta attgactcat agttctgcag ggctggggag gcctcaggaa acttacagtt
15961
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16021
       cgagcaaaag ggagaaaagc tccctataaa accatcagct ctcatgagag ctcactcatt
16081
       atcacaagaa cagcatgggg gaactgccc catgattcaR ttatctccac ctgqtccctc
16141
       tcatgacacg gggggattac agaaaccata attcaagatg agatttgatg gggggaacac
16201
       agccaaacca tatcagattg caagggaaag atctgtaact tcccagacat gtggtataaa
16261
       atttgtgttt aggtacatta atgtggtata aaatttgtgc ttaggtacat tatggtattc
       atttttctag gaaggggacc tatggcttct aacagacact aaaaaaaggt aggtgacccc
16321
16381
       caaaatgcca agactgctat tctgcgggtg aagcgcccaa tgcttaatcc ctctcctcc
16441
       agtettgagt cateaceage atceageett teteaacett geagetgett caggatgtga
16501
       cagatgtgat aaaatgcagg gcaggtcggg ataggccaag aagcaggaag gggctggatc
16561
       ttagggtgtg tgagggacag gtacagaatg cccctggaga gagtgtgggg ggcttcaaat
16621
       gccatctgag gagtctggat ttacccctgc gaatgatagg gagttagaaa gcatcttaag
16681
       catgggtgac atggacaact ttgtgtatca gatagtcctc tctcatagtt gggtggagcg
16741
       tggacaggag atgggtaagg ctggagaggg agagtcagga ggaaagaatg ggagatgaga
16801
       16861
       cctgttgcta cagagagagg ctattctgga aatgctgagc ttggcagaag aggctttggg
16921
       ggctcagggg agaaaagagg ggtagcttgt tggccagaga agtggggaga cacctgggtt
16981
       gaatgagggt ctacaggaag gctccctgga agatggacag cctgactctg cagtgtggcc
17041
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17101
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17161
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17221
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17281
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17341
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17401
       tgtgacctcg agagcagagc cagtcacttc ctcctccctg ctctcacagc ccctgggctt
17461
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17581
       tgagtctggt acagctgatt gcagccctgc tatggatatt gaactgttag gtcctgagtg
17641
       ggacactcct gccagtgggt ttacaaagga gccagtgtag gacataattt aaaaaagtgt
17701
       ttgccaattt attataaagg atattacaaa gaatacagat gaacaacagc cagatggatg
17761
       gaatagatac ctaaggcaag agatgtggga agaggcgagg ggctccatgc cctctctgga
17821
       17881
       cttttgtgtt tttaaaaagg atggttagtt gccttgaagt aggtggcgat gccttaactg
17941
       catgcatgct gtcaggttgc agggtctctt ccgtcattgt caaggggagt gctaactttc
18001
       cctcctttct taaaacatgc aacatgatgt tttaatgtac atatgtatgc ataatgtaca
18061
       tatgtatgca taatgtacat aggcaggaac ttgctgtgca actatcagta gtttctttct
18121
       atccgtagcc gaagcagtta ctatggccga ggaaactgac atatccatta tctcacatag
18181
       ttacctttct ttctttttt ggtgagagta cctaaaatct acgctcttag caaatttcca
18241
       gtatgcaata caatattaac tatagtcctc atgctgtccg ttgaatctct agtcttattc
18301
       atcctataca actacatctt tcaacccttt gacctacatc tgtccagtcc ctcccatcaa
18361
       tcatcattct tctgttttta tgtattcaat ttttttaaga ttcatgtgta agtgaaatca
18421
       tgcagtgttt ttctttcttt ctgtgtctgg tttattttac tcagcataat gtccttcagg
18481
       ttcatctatg ttgttacaaa tggcaggatt gctttctttt caaggctgaa taatattct
18541
       ttgtgtgtgt ttacatttat atataaatat atgtaacaca catatatatg tttatgtata
18601
       cacaaagaaa tatatataca cacatatatt tatacatata catcatgatt tctttatcca
       tttatctctt qatggacact tcggttgttt tcatatcttg gcagttttga ataatgctgc
18661
18721
       gatgaacatg ggagtgcagc tatctttaca aggtggtgat ttcatttcct ttaggtatat
18781
       acccaatagt aggattgcca gatcatacag tagttctatt tgtaactttt tgaggaaccc
18841
       ccatactgtt ttccataatg gttgtaccaa tttacattct caccaacatt atacaagggt
18901
       tcccttttat ctacagcctt gccaatcctt gttatctctt gtctttttga gaatagccag
18961
       cctaacaggt atgaggtgat cactcattgt ggttttgatt tgcattgtgg ttttgattta
       tettttattg tacetgtttg ceactagtgt atetttetet acetttgttt teeetettet
19021
```

FIGURE 4-F

19081	ttctttcctg	cctttttaac	ctcacctctc	acttctcctg	aaaagtcctt	tccagtcttc
19141			taatagaaag			
19201	gggcccaagc	agccccagac	acccactgtg	gcctgatctt	gccctgtgga	cccctctccg
19261	cagtacgttt	aagctggacc	agcctttagt	gggcgtggtg	gggtgcttgg	acagtcgccc
19321	cctacctcta	ccataggaga	tctgggactg	tctttqqaaa	cctcaataat	acadataada
19381			aagaagctgc			
19441	ttgctctgcc	actccgaggc	tgtgtgatct	agtgctagcc	tcaacttagt	tttcacatct
19501	acqaaatqqq	cataacaaga	ggagaattaa	ttgtgaaggt	gttctgaaag	ttttttcaca
19561			ggccgtacct			
19621	tactttttgt	atccatcaaa	tatgtttgat	ggagctaagg	gtgaactgtt	ctagctggga
19681	tgtgcagcca	ctctgggcac	agaaagtcct	cagccaacca	ctgtaaatgt	gctgacttga
19741	ctccacacag	actttttact	atatgctgga	gatccagtag	agaggaaatt	atagacagca
19801						
			ccctcaccct			
19861			gtgtcagggt			
19921	gccagacagc	aaagttcttg	ctctcatgaa	aattctggat	ctttcttcac	ctctgatatc
19981			gtagtttcag			
20041						
			agtccctgct	-		
20101	caaagtgcca	ggctcagcag	gaacactggc	aaggcctttg	gaagccaaag	ataacacccc
20161	tcatctcccc	gcaactcttc	cccaggagtc	gtggtcccct	tctgctgagt	tctgggcttt
20221			tgggggtctg			
20281						
		_	cttctacctc		_	_
20341			gctcgagcct			
20401	atgcccagga	ctctgctttt	gctccaagct	cagaagccca	ggtctggagc	ctctgagaag
20461			tcccaggctg			
20521						
			cacaggtagg			
20581	cttcctatgt	gatatggggc	aagtcacttt	ccatctccga	gctgaggtta	cttgtttgtg
20641	tgttcattca	tccattcacg	catccagcaa	gccttttgac	tactcttcac	ctcctgttgg
20701	-	-	cacagtatct			
20761						
			tgtttcctga		-	_
20821	gttcttcaca	tgcctcatct	ggaaccccag	ctggtctcct	gtgccaggca	ccctggcagg
20881	ggcacactct	gggcatctga	gcacagggaa	gctctgtctt	tctctaggaa	ttctggctgc
20941			tttgaaagac			
21001						
			caccgaggag		-	
21061	ctggccaaca	ggctcagaga	ggtagcctct	gggtggacag	cccagggaaa	aaaaaagatg
21121	ggaggacaaa	gggttctgta	gaagctgaga	cctggaagtg	gacatgggca	ggttggtttg
21181	actcagaaat	taggacttga	ggttgctgct	accttaataa	ccagacttta	gaggaggagga
21241						
			tgtatcctgt			
21301	gggatgggta	catggcccaa	gagtggtctt	tctgagtgaa	ttccaggaat	tgatcctgag
21361	cattggggaa	gagacttgtt	cttttcccat	tggacatgta	tgtgggaaga	tgaagcttgg
21421			ccatagatgt			
21481						
			agactgggca			
21541			tggtcttttt			
21601	agttagaatt	tttaaaaaat	cacttgcaac	cagaagagtc	ctacctgaca	cataaccgat
21661			agatcaatgt			
21721			tcggtggagc			_
21781	gatctaatgg	gggccccact	gatctagaga	ccaacagcct	gggggcccaa	gacagetget
21841	ctttgattcc	aaatgaggta	tgaacagaac	ctgtccacct	ggacaccgag	gcacctgcct
21901	tgttgtgcca	catgtatctg	tgactaagag	gagatttggc	tggttactgc	ctagctctgt
21961	agcccagtca	actcacataa	tccagggaaa	anggattagt	tagacatcag	gactgggact
22021						
			gagggtgctt			
22081	agagaaatcc	tgtgtccctc	tgatgtccat	catagccgta	caagctgcca	ctcctggata
22141	tgacttaacc	ttttgacagc	tcttccccaa	atggacttct	gggtctctac	ttggacaaaa
22201			agggcttttg			
22261						
			tgaacactgg			
22321			tcccacagat			
22381	tataaaatgg	cacagtattt	gcatataacc	tatgcacatc	ctctgtatac	tttaatcatc
22441	totcaattac	agtcatgtgc	cacacaatga	tgattaagtc	gatgatggg	tacatataca
22501			aatggagctg			
22561			aatgcatcat			
22621			aacctactgc			
22681			tacttgacaa			
22741			actttttatc			
22801			ctcaggaggt			
22861	gttaggatag	gagatgacag	ctccatgcat	gttactgccc	ctgaagatct	tccagtggga

FIGURE 4-G

```
22921
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22981
       aatgtgtgtg tttgtgtctt cgtttttaac aaaaaagttt aaagttttaa aattttaaag
23041
       agtaaaaaaa aagtttataa aaaatagatg aaagctcata gaataggata taaagaattt
23101
       ttgtacagct atactatgtg tttcaagcta aatgttatta caaaagagtc acaatttgca
23161
       aaaattaaca agtttacaaa gtaaaaaagt tacagtaagt taaggttaat ctattattga
23221
       agaaagaaaa aacgtttaaa acaaatgtag tgtggcctca ttgtacagta tttatgaagt
23281
       ctacgatagt gcgcagtgat gtcctaggcc ttcacattca cttactgatc actcactgac
23341
       tcacccagag caacttccag tcctgcaagc tccatttgtt cattttttag tcttttatac
23401
       tgtattttta ctgtatcttt tctttgttta catatgttta aatacacaaa tccttactat
23461
       tgtgttacag ttgcctacaa tattcagtat agaacatgct gtagaggttt gtagcccagg
23521
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23581
       gagtacactc tgtggtgttt gcacaaccaa atcacctaaa gacacatctc tcagaccata
23641
       tccccattgt taatggatgc ttaactgtac tgataatacc taataaaatg taaatactat
23701
       gtaaatagtt gttatactct atttcttggc agtaatgaag agaataaaag tctttatatg
23761
       tttaggatgg atgccacttt ttttttcgaa tattttccat ccacacttgg ttgcatccat
23821
       ggctatggaa ctcttggaga tggagggcca actatatata gaattgtagt tagtggccgg
23881
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23941
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24001
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24061
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24121
       24181
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24241
       attctatagt tctcatttca gatgaaaatt cagctgttct caacgacttt tttgttgttt
24301
       gcataggtga tcctcaactt tgatatgttc taattttcat gcatgtatct ttcacttctg
       tgactgtata ctgataactc aaacagatac ttcatccttt agttgatggg tggtgatttt
24361
24421
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       tctacagaga caaggggtat gggaagcgtt tatggtacag ctgccccct ttccctctgt
24481
24541
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24601
       tgtacaatga acaattaggt gtttgcttcc caggcccatg ctcccctctc caccactaca
24661
       gtccttgcat ctggtaaggg tgggaagggg gttcagtggc cactggtcct aggtgatggc
24721
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24781
       atgagggcag agaggagag tggaatcatg gaagagaagc cacaggctcg acctcccagg
24841
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24901
       tataatgcat gtgacaggga tggcaatttt gcaaatataa aacagatata tttaattact
24961
       cattacatca ctgttttccc tctgagatcc agctacaaaa attatcacta gagggcagga
25021
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25081
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       tqtqqcacac tqgggtcagc taaaggggat ttgggaatgc ctacatggga gctagtgaaa
25141
25201
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25261
       gttgaattta tataatattc taaagaaaat catttaaata ttttattgtt aaacatgagc
25321
       ttgcttcaaa ttaacatgtc ttttttatgt agttttaggc ttgaaatggc tacatggaat
25381
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25441
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25501
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25561
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       tgcacctgtt aaaaaatata taccagttga aatcatatag agactataac ggcattttct
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25741
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25801
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25981
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26101
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26161
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26221
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26281
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26341
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26401
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26461
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26521
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26581
       cactatgcag caagetgcca aaggacgtgt cctcgccgct tgggatgaga tcactgtcct
       tgctgtttga tggggcccac tcttggctgc cctccaagga gctgtaggtg aggttctcct
26641
26701
       tagaggtacc caqcetgtgc actttggctg ccctctcacc tgaggaccga gggcatcacc
```

FIGURE 4-H

```
26761
       attgtgctgc atgcctgtgg cccatctgaa gcacttccac ggggaagctc tggcctaggg
26821
       aaggtacctg tgcctgtccc taaggctttc tcatgaggct agagtagaaa gggggaggat
26881
       ctgacataaa ggaagcaaat aagcacccat ttcttggtcc cagggaattg tgggaggaag
26941
       aaggagggag gacaggagat ggtggagagt ggagggcagt ggcgggggca gtgcaaggag
27001
       aaatggagcg ggatgggaag agaagttgag agtggtcagc cagatgggtc ttaaattccc
27061
       tttctqqqct ttqqtctaqa qcaaqtqttq qcqaactatt ctqtaaaqqq ctaqataqta
27121
       aatgtctgag gttcgtagga tcatatggtg tctgtcacaa ctactcgact ctgccattgc
       agtggaaaag cagccaagga caatgggtaa atgaataaat gtggtcatgt tccaagaaaa
27181
27241
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27301
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27361
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27421
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27481
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27541
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27601
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27661
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27721
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27781
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27841
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27901
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28021
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28081
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28141
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28201
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28261
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28321
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28381
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28441
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28501
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28561
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28621
       ctaagctgac actgctgctt gagtctttaa tgcatgtatt cttttcttca caaaggacat
28681
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28741
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28801
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28861
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28981
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29281
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29341
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29401
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29461
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29581
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29641
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29701
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29761
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29821
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29881
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29941
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30001
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30061
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30121
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30181
       ccccattttt caccctggct ccaatgcatg aggctttgtg gggtcggtgg tcggaatttg
30241
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30301
       taagctggtt atcatccagc ttcttacctc ttccaataat tattgacttc tcttgtcctc
30361
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30421
       atttcattac ttttacttta gtgggtgtca ggatggaatg gacataccac atgtgtttac
30481
       acceccatgt ttcattagaa atcetagtca ctgttcaaca cattetetca getecateag
30541
       tcctttgaag ctgttcttgt caaggacacc accatttcca tgttgccaaa tctcttggtc
```

FIGURE 4-I

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30601
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30661
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30721
       catccactga gcatgcttca ccctctcttg ctatatcttc ctcttctggg aattcccatg
30781
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30841
       tagtectagg getttaaata etttetatat accaatgaet etcacatatt tatetgeage
30901
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30961
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31021
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31081
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31141
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31201
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31261
       agtggtttcc tggcttccac tatggccctc caaggatcca ccttccgcat agtagccaaa
31321
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31381
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FIGURE 4-J

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FIGURE 4-K

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42061
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FIGURE 4-L

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42241	attttagaat	aagtgtgatg	tggtactgag	aagaatgtat	attctattga	tttaaaataa
42301			taggtctgct			
42361	_	_	cgttgatctg		-	
42421		-	ctttgtaggt	_	-	
42481	tgtattgggt	gcgtatatat	ttaggctagt	tagctcttct	tgttgcgttg	atccctttaa
42541	cattatgtaa	tgcccttctt	tgtcgctttt	gatctttgtt	ggtttaaagt	ctgtttcatc
42601			ctgctttttt			
42661		-	aacctatgta		_	
42721		-	_			
			tcatccaatt			
42781			ttagtattgt			_
42841	gctagctggt	tattttgccc	gtcagttgat	acagtttctt	catagtgtcg	atggtcttta
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43081			gaatgctgac			
43141	-					
			ctgttagtct			
43201	-		acatttttc			
43261			ttcttgagga	_		-
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43441	attttatctt	ttcacatagg	tccatatttc	ttagaagactt	totttattcc	ttttcattct
43501			cacactttat			
43561			ttcgggtatt	_		_
43621			ttatgttctt			
43681	-	-	tcttagcttc		-	
43741	cttggaggag	tttgttatta	cataccttct	gaagcctact	tctgtcaatt	ggtcaaactc
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43861			ttttcagcct			
43921			tgatgttggt			
43981		-	gtattccttt	-		
	- ,		-		_	
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44101			gcagcacaac			
44161	gcttcgtccc	agaggggcac	ccaccagagg	tcagctggag	ctctcctgta	ggaagtgtct
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44881			ccagggccct			
44941			aaaagtgtag			
45001			ccttcactag			
	-		_			-
45061			ccctgcttca			
45121			agctggatac			
45181			agctgcagac			
45241	gccacctaca	tttattttt	tttttaagtt	tattgtgact	ċacagaatta	atttcatgcc
45301	tcactaatgg	gtcacacaca	tagtataaaa	aatactcata	gagagacatg	ttgtgccctt
45361	tactatatta	gtgcctcgag	tatgtcagct	tgatgatgaa	agagactagc	tgatctgcta
45421			atatcttgaa			
45481			qcqtttttaa			
	-	332			-	
45541		-	gctaggtcaa			
45601			atccttgacc			
45661		-	tctctccagt			-
45721	ctctgaaaca	ccacgtcccc	atactctctt	ctaatttctt	ttgcaaagaa	gactgaaagc
45781	cagcttatct	agtaggcaca	ttagggacca	gccctataaa	aaagtattaa	ttttaatttc
45841	_		gaatataaaa	_	_	
45901			ttcataaaat			
					,	

FIGURE 4-M

45061						
45961				cacaaaagcc		
46021				ccattttggt		
46081				ttttttctgc	-	
46141	_	-		tgttaagaca		
46201	_			aataggacta		
46261				gaaatatatt	,,,	-
46321				aggaaaccca	_	
46381				ttctctctat	-	•
46441			_	agactccagg	_	-
46501	gtgacctcag	aagaagagac	tcctcctaga	gcccccctg	ttcctcagag	gactccaact
46561				gtgtccaggg		
46621	agcttgtcat	atttgcccct	cttcctccct	attacttgag	tggcagtccc	acaagtctcc
46681				tgaagaaaca		
46741	tccattccag	ggctgatcag	tctgaggcat	tgttaaaatt	atccctcttg	caggacgtta
46801	gaaccaattg	agattcattc	agaacctcta	cttaattttc	cagatgtgag	ttctgtgtgt
46861	gaccatcagg	gtttagtaga	tactgcacag	actcatttaa	ttgtcacaaa	acctgtgagg
46921				aatgtaaaaa		
46981	aactaagcac	tttgctaaaa	accctacata	tatctaataa	aaattccatg	aggtgctgag
47041				agaaaccaaa		
47101	acaaatgaat	tgaaaggatg	atagagtatc	taatggatac	cctgtcagag	gaaggattga
47161	acaatcaaaa	cttggaagga	caagaaccca	ttcttgcctg	atcttgtccc	cttaggaggt
47221	gaatttgggg	ttaaacctgg	tgcagcactg	ctagctccta	gcccctatta	tcactctgtt
47281	ccaaatacca	cgtttcaggg	tgggagaatc	tgattggcct	atcttgggtc	aggtgtatat
47341	ccctggacca	atcaggttga	aggaccctgt	aacataggca	tggccaccag	gctctctcag
47401	gtttatatag	gagctgtgct	cagagaaatg	gaatccctgt	gagctgattg	gtcactcaaa
47461	gggagataac	tgcaagcaca	caattctatc	actcagggct	ttggcacatt	gaaaagtggg
47521	taattgaaga	gcatttaatg	aggggattaa	gtgagaagag	tttagggaaa	gcaacaaagg
47581	atgttgcagt	atcttggggc	tagtgagtat	gggagctgtt	accatcccag	gcctgaaggg
47641	gaaagaggag	gtagtggctt	ctggaaccta	tggaaagagc	tgtcaaaagg	ctgcctgaaa
47701	gtagtttcag	tctctgggag	agggtcataa	ccaaccctta	gcaacccagt	ggtgtgggta
47761	ccaggggaat	aagcaccaag	atgtcactct	cctcccacct	tcccatttca	tgggtgcaac
47821	tagaagccag	agggcaaagg	agtccctgga	tgtggttcat	ataggccatc	ctcctgggac
47881				atatggaagg		
47941	acaataatac	aaatcccagt	ttacagatga	ataatctaag	gcttgaagga	cttagtgact
48001	tctttagatt	cacacaatca	actcaaggga	ggagctagga	cttgaactca	gcaagtctga
48061	ctctggaacc	tgtgctctta	accactaggc	tctatcatct	ctcggatgaa	gaccctgaat
48121	tcagacagca	gattgactgt	gcacagctca	gatgaattac	gttatctcac	tgatcccctt
48181	gtagtatcac	ctcttagctg	cggcaacaac	aagagctcct	agtcctgctt	cccagaatgg
48241	tgctggaaga	ttcacacttg	ccattttccc	tctagactct	cccactggga	ttcgcagatc
48301	tacagagtgg	tttgaaatat	cagaggcagc	ccaagtagag	tccaagcttc	ttgccaccag
48361				atatgattga		
48421				gcattctcat		
48481	gagagctaat	accattatca	gatgcctgtt	catctcatat	aagtaggcct	attagcgcct
48541	catctgtctt	gcctcctgtt	tcctgccact	gcttagagcc	cccagacaag	agcacttcca
48601				agttataata		
48661	catgtcccat	tattttctag	ctctttagct	aataataggt	tatatctgtt	atacatttaa
48721	tgtatgctag	gtactgcact	gaaatgtctc	atttcatgtt	gacaataaac	ctaggaggta
48781				agaaaccgaa		
48841				tccaagattt		
48901				cttagaaccc		
48961				ttcaaagtga		
49021	atggggtgtg	gtggagacta	ctagtgatca	ccaaatacca	atgtgttcct	ataaagtccc
49081	tatttctgtt	gcagttgatt	tggagttatg	tgatgtgtag	cccatcagaa	gtaagcagaa
49141	aactttgtgc	cgttttctRt	cctggaaata	acacccccgc	cccctggccc	cgctgcatta
49201	-			ctccagaagt		_
49261				ggagaaagcc		
49321	gccttggatg	gtgacatgag	tgagaaataa	acctttgttg	ggttagactg	ctaagattta
49381	aacttaaaag	tgtttttta	atgtttagtt	tttgtggcta	catagtaggt	gtatatgttt
49441				atacaatgta		
49501	atggagtatc	atcacctcaa	acatttattc	tttctttgtg	ttacaaacaa	tcccattaca
49561				attatYgtta		
49621				ttttttgtac		
49681				ctcagtaacc		
49741	catgattcaa	ttgttttagt	ttttagctct	cacaaataag	tgagaacatg	tgaaatttgt

FIGURE 4-N

```
49801
       ctaactgtgt ctggcttatt tcacttaaca taatgacctc cagttctatc catatttttg
49861
       caaatgacag gatctcattt atttaatgac tgaatagtac tccattgtgt atatgtatta
49921
       cattttcttt atccctttgt ctattgatgg acacttaggt tgtttccaaa tcttggctat
49981
       tgtgaataga cactaagatt tttgagttaa tttattacta gggtatagtt tatcatacta
50041
       tgactaatat aaatatcata ctaagacaga tataggtaca ttgaaatagg gcactgctat
50101
       aatagctgat ggtgtgctga gaggaagcct ggtgYtggag accagaaata tgtcaatgca
50161
       tgttatgttg tgccaaaata ttaStaacca atctaacttg ggaggcaagc ttcatattta
50221
       cttatatggc atctctagga aaagagactg aaaaacagaa cattagtaga tgtgttggct
50281
       actatttctg catttggcaa gtattacaag aaaacttcag aataggactg gccagagact
50341
       tqcaqaatqq acaatacatq atccaactat atqctqcata taaqaqacac atKtttqatt
50401
       Maaaaacaga aataggttca aggtaaaaga atggaaaaac atatatcagg caaacagtaa
50461
       ccaaaagaaa gctggagtgg ctatactaat atcagacaaa atagacttta agacaaaaat
50521
       tgttatcaga gacaaagaac agttttataa ttataaataa atcaatttgt caagaagata
50581
       taaaaattat aaacatatat gcacctaaca acagagaccc aaaatacatg aaacaaaaac
50641
       tgacagaatt gatacaataa tggttgaaga cttcaataca ccactttcaa tcatggatag
50701 , agcaactaga cagaaaatca atatgggaat agagactaaa taccaatata aacatactag
50761
       atctaatagc aatataaccc ttcactcaga aacaactgac tatacattct tcttaagtgc
50821
       acatggagaa ttctccagtt tagaccatat gtcaggtcat taaacaagtt tcagtaaatt
50881
       tcaaagttct gaaataatat aaagtatgtt tcctaaccac acagaatgag attagaaatc
50941
       aataacagag ggaaattcac aaatatatgg aaattaaaga acatttctga ataatcaatg
51001
       agtcaaagaa gaaatcacag acaaaactag aaaatacttt gagatgaatg aaaataaaaa
51061
       catgacatac caaaacttat gggatgaaac caaagcagtg cttagagaat attatagcta
51121
       taaacaccca aattgaaaaa aggacaaaga actcatatta gtaacctaaa cttctacctt
51181
       aaggaactag aaaaacaaga gcaaactaaa cccagaacaa gcagaaggag gaaaccaata
51241
       aagattagag cagaaaggaa tgaaatgtaa atagaaaaga atagagaaaa aaaaacaaac
51301
       ccaaaagttg gttctttgaa aaggtcaaca aaattaacag acctttacct tgactgacag
51361
       agagagagag agagagggag agcatagaga gagagagaga gagagacaga gagagagaga
51421
       cagaatcaaa ttactaaaat caagaatgaa agaggggatg ttgctaccga ccttgcaaaa
51481
       atagaaagga atataaggta atattatgaa cacttgtgtg ctaatgtgtt agataatcta
51541
       gataaaatga acagattcct agaaagacac aaattactga aattgactca agaagaaata
51601
       gaaaattgaa acagacctgt aacaagtaaa gagattgaat tagtgattaa aagtacttgc
51661
       cacaaagaaa agtagatgac aaatggcctc actggtgaat tttataatac ctagtattaa
51721
       agagttaagc ccaatacttc acaaatactt ccaaaaatta taagaggaga gaacattttc
51781
       caagtcattc tatgaggcag tattactttg ataccaaagg cagaacaaaa tatcacaagc
51841
       agaaaccaat attccttata aatatagatg caaaatcctc ataaaaatac cgggaaactg
51901
       aatcagcaac atataaaaag tattttatac catgacaaag caggacttat ggcaggaatg
51961
       caagattgat tcaacatgca aaaatcaata aatgtaatat gccatattaa tagtataaag
52021
       qacaaaaaacc acattatcat cttaatagat gaagaaaaag catttgacaa aaaccagcac
52081
       cttttcatgg tcaaaacaca caacaaagta ggaattagaa agaaactttc tcaatcttct
52141
       aaaaagcata tatgaaaacc ccacagctaa catcatacct aaaggtgaaa gaataaaagc
52201
       tttcccctaa gataggaatg aaacaaggat gtccactctt gttacttcta ttcaacattg
52261
       tactggaggt tgtagttagg gaacttgatc aagaaaaaa ttggcatcta tatttgaaag
52321
       aaaqaaqtaq aatqatcttt acttqcaqat aacatcttac tqaatataqa atatcaaqqq
52381
       aatccacaaa aaaaatctta gagctaacaa tgagttcagc aaggctgcag gatataaggt
52441
       taatatacag aaattgcttg tatttctgta cactaataat gaacaatcca aaaatgaaat
52501
       taagaaaata attccattta cagtagcatc aaaaagaata atatatgtag agacaaactt
52561
       aacaaaagaa ttgcaatatt tgcacactaa aaaaagatga aacactgcta aaggaaatta
52621
       aagaagacct aaataaatga agacatcgca tattcacaaa ttggaagact caatattgta
52681
       agatggcagt actccccaaa ctgatgtatg cttttgaata atatacagta tgttccctaa
52741
       ccacaacgga atgaaattag aaaatcccag ccaggttttt gcagaaattg acaagctgat
52801
       aataaaattc atgtggaaat acaagggatc cagaatagcc aaaataatct tgagaaagaa
52861
       gaacaaagtt ggggcattca cattttcagg ttcaaaactt actacaaagt gtaataataa
       agatagtgtg gtactagcat aaggatagat atataaatca atcaacagag agtccagaaa
52921
52981
       ttagcccacg tatttatagc caattgattt tcaataaagg tgccaagacc attcaataag
53041
       gaatgaatag tctcttcaac aaatggagct gagaaaactg gatatccatg caaaagaatg
53101
       aagttggact actactcaca ctgtacacaa aaattaattc aaaattatca aagatctaaa
53161
       cttaagagct aaaactataa tactcttaga agaaaacata ggtatacatg gccttggatt
53221
       atgcaatgat ttcttacata tgataccaaa agcacaagca acaaaagaaa aaacagtctt
53281
       catcaaaatt aaaggacact attaagtgtt tcaaagaaca ctataaagag agtgaaaaga
53341
       caactcagaa cttgagaaaa tatttgcaag tcatgtgtat ctgataaaca tctagtatcc
53401
       agaatatata aagaactatt ataactcaat aacaaaaaga aataacctaa tttttaaatg
53461
       cacaaaggat ttgatagatg ttttttccaa ataagataca caaatggaca agaagcacat
53521
       gaaaagatgc tcaaaatcat tagtcattag ggaaatgcaa attaaaccta aaatgggata
       ccacttccta ctcactaaca tgactgtgat taaatagaga caatgacaag cgctggtgag
53581
```

FIGURE 4-0

```
53641
       gatgtggaga aattggaacc cttatacact gctggtggga agtcatatgg tgttactagt
53701
       ttggaaaata gtttgaaagt tcgtcaaaat gttaaacata caattcctgt atgacccatc
53761
       aattccactc ttaggtacct atctaagagc tataaaacac acacattccc ataaaaatct
53821
       gtatataatt tttcgtggca caattattta taatagctca aaagtggaaa caaccctcat
53881
       qtccatccac cgatgaacgg attaaaaaaa atagtgtgtc tatacaatgg aatatgattc
53941
       atccatataa agaaataaag tactgattct cattacaaca tggctgaacc tcgaaaacat
54001
       taactgaaag aaattggaca caaaaggccg tgtattatat tatttcattt atctgaaatg
54061
       tctagaatat gcaaatccat atccatatct acagatagta gattaatggt ttctaggaga
54121
       gaggagaagt ggtaaatgga gagtgactgt taatggttcc aaggtttctt ttggggctgg
54181
       tgataatatt ctgaaattag atagtggtga tggttgcaca actttgtaag tatagtaaat
54241
       accactgagt tgtacacttt aaaaacagtg aatatcatgg tatgcgaatt aggtctaaat
54301
       tttaaaaaat ttaaaaaaga gttgcctgtt tgccagtaga aattaactaa aatagagaaa
54361
       attcagaata ctgaggcctg tagaattgaa aaaattgact gtttctagtt tccggatagt
54421
       aagagatgga aatttaaaag gcgttgcata ataaggccca agaaaatgtc tcagttgatt
54481
       aaaatcccag ctcatgccta taatcccaga actttcagag gctgaagtgg gaggattgtt
54541
       tgagtccagg agttcaagac cagcctgggc aatatagtga aaccccgtcc ctacaaaaaa
54601
       attaaaaaac tagctgggca aagtggtgca cacctgtagt ctcagctagt tgggaggctt
54661
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54721
       54781
       aaaggaaaat atctgattaa aggtgcattc ctttgttcta gctagcttca aggtagacac
54841
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54901
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54961
       accaaatttt tgaggaaaca gtattgtcaa agaaaccaca aggctgtata aaaagcgtta
55021
       gtccattagc taagccttaa agcaacctct ggtaggaagt tgcacatccc ctaaagagag
       tattctccct aactccctct ttacatgtgg tcaagcagta tcagggtcca ggaggaagcc
55081
55141
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       ctaggcagcc tttataacat ctgcccactg gtatttcagc actgtcacag gcagtgacta
55201
55261
       ctgtgggtct cttagtcttc ccctttctga atgggagtta tcctgttcct gttattgtag
55321
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55381
       cttatgctgc taataaagac gtaccagaga ctgggtaatt tacaagaaaa gaggtttaat
55441
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55501
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55561
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55621
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55681
       agctacaatt ccagatgaga tttggctggg gacacagcca acccatatca catggatatg
55741
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55921
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56041
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56101
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56161
       ggcatatagt tttctttttg gaaacagttt taatttcaga tttgatttct ttgatagata
56221
       tagggctatt ggtattttaa aatttcttct tgtggcaatt ttggcaaatt gtattttaag
56281
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56341
       atctattggc ataaagtttt ttctaacatc ctctcattat ctttttaatg tctgtaaggc
56401
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56461
       gctctctctt ttcttgaatt gtcttgctag gagtttatta agtgtattaa tctattcaaa
56521
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56581
       cctgctctgt attcctctct tctatttttt gagggggtta attttctgtt ttttgttttt
56641
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56701
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56761
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56821
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56881
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56941
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57001
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57061
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57121
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57181
       taaccttcct tattttttaa tatatggact taatggtata tgtttccttc tagattctgc
57241
       tttagcagtg ttactgacca cattaccact cttctctcca catatccagc agtgaaagac
57301
       ttctgatgct ggaaatgcag aatgaatctg catgaatctc tgagtcactg tctgggatgc
57361
       aagagagctg cctcacatgc attggctagt gatatatgca agaaacatac ctttgatgtg
57421
```

FIGURE 4-P

57481	caagagggct	tgttttacaa	tagctcttat	atctgtccat	attgcagttt	gcaaagactt
57541	cccattgatt	ccccaagtg	tttttcctga	agatgtgggg	ttaacggagg	ggtattacag
57601	catagcacac	aacacaaaac	aattttaatt	taatatacag	tcccctcctt	ccccaqqqa
57661			cagattcggc			
57721			cctcactttc	_	-	
57781			tccagctttg			
	-					
57841	-		ctcttttcta	-	-	
57901			agcctgttgg			
57961		-	gagtggtatt			
58021	ctatgctcag	gtttttattg	attttatttc	atttgcttta	tttctacata	gttgaaatca
58081	tgttcttgtg	gactgctttt	ctaacttaat	gttctatcag	aagcatttac	catattactg
58141	tataatattg	ggaaacatct	gttttatatt	cacattttt	cctatttaaa	aacataattt
58201	tcagtcctga	aggatatgag	aagaacatgc	aactccccaa	aatcctactc	ccgggcagaa
58261			gcatgatttc			
58321	_		agagactgct			
58381			gacagcctag			
58441			gcaattgtgg			
58501						
	_		tagcctgtga			
58561			gaataaaaac		-	
58621			gttctcagta			
58681			tcatagtaaa		_	
58741			attgagtaca		_	
58801	gtcagggggc	aaaggtggtg	acccttagca	ctgtttacag	atcctcactg	aggaggaaag
58861	aaaagctaca	gggacaggtg	ggcttggcca	ggtacttgta	gccatcaggt	tcacaggagg
58921	ccttgaggtc	aggtcagagg	caggaagatc	ctgtgctgaa	gagtaaaact	tggagagggg
58981	ccttgtgaga	tcttgcgagg	gatctggaga	aataggatag	ggcagtgatt	aaaaaggcct
59041	atcaggacca	ggctaacagg	agttagccag	ggaacatgag	acaaataaat	aacttggaat
59101			ctgcataatc			
59161			ctgatattat			
59221		-	cacctttgaa			-
59281		-	_	_	-	_
59341	_	_	gcaccatctg			
			gggaccctct		_	
59401			gatttaaatg			
59461		-	gacatacttc			
59521			atgagtagag			
59581			aagaaggcta			
59641	tcactcagac	ctattcctct	tgctctatgg	agaggagctg	aacagaaggc	cagaccctgg
59701	aagaggaaaa	gaattaaagt	tgaagactcc	cctgaagaag	gaggagggtg	gaatgggtgg
59761	tacctggcac	tagagtgtct	gcacagggag	tggcatgagt	gggcacctct	acaactttga
59821	tggaaggaag	caaggtgctt	acagagtagc	tgtggggaga	agaactttct	tcccctctga
59881			ggaaggaatg		_	_
59941	_	-	aggaatctta			
60001			gaaaagttaa		_	_
60061			gccatctggt			
60121			aatgcgtaaa			
60181			gaaatgactc			
60241			atgtctcctc			
60301			cttgtatttt			
60361			cacccactag			
60421			ctaggaccca			
60481		_	ggacttttaa	_		-
60541	ttagagaagg	tgacacataa	tatattaata	taatcctggt	aacctcaggc	ctatgttgcc
60601	tccatttctc	tgacacattt	ctgacacatt	accaggaggg	agtcctgctg	atgtcaggaa
60661	ttcatgagga	aggggggtga	aaactttaat	cagatcaaat	cttaccttta	gagcaggaga
60721	gacatacttt	ctctttgatc	tccctgaaac	tgccaaaagg	tttttqccqa	actcataggt
60781			gctacaacta			
60841			gaggatatct	-		
60901			aggcctggta			
60961			ctatqccctq			
61021			gttagagagc			
61021						
			ctctggcctg	-		-
61141			catgagtgta			
61201			gtctcgctct			
61261	gcgcaatctc	ggctcactgc	aagctccgct	tcccgggttc	acgccattct	cctgcctcag

FIGURE 4-Q

```
61321
       cctcccgagt agctgggact acaggcgccc gccaccgcgc ccggctaatt ttttttgtat
61381
       tttttttagt agagacgggg tttcaccttg ttagccagga tggtctcgat ctcctgacct
61441
       catgatccac ccgcctcggc ctcccaaagt gctgggatta caggcgtgag ccaccgcgcc
61501
       cggccgcctc cgcctcttcc ttaacaaagg aagagctaat ttcccacgcc cccctccca
61561
       ccacaaagta tgagggccac actggaggga tggtagagtg atggctggaa gaagtgtggg
61621
       gcttttgtgg aacagcctgt aatgtccaac tctggactat ttagggaaag gaaatgagac
61681
       agaaattttt ctcttgttta ggccactatt attgtgggtc tctgttacca tcagccgaac
61741
       ttaattcccg tgaatatatt tgtgaacact aaattattgg tgcatcataa gctttcatca
61801
       tgttcattta gatagggatc tgaactttgc cataggtgac tggtagtgat ctggatccag
61861
       tgggaattgt ctggaatgtg atcaagacat gaaatgtgca gatgggccag tgacgagggc
61921
       ttaccttttg ggagcagttg acaggtgata gataccgatg acttctagct gatttattcc
61981
       tcttaaagag tcatcctttg gatgaatcgt gagctatgga aacgattgct caccctgagc
62041
       tgtttggggc ttgtgttctt ctcaagattt ctgaggacct ggctcgagct tctgtgtcag
62101
       agtcctcatt ctgactatgg ggcctcagtc cttttttggt gtttatgctc tttctctggc
62161
       tgctgccctc ctttcctctt ctgagccttg ccagtgtgga acatgactgt cttctgtgtt
62221
       cccccagaac acggctaaac cgctttgcct gaagccttgg ggatactgga tggtggatag
62281
       agacccacat gctctgccct gttcatactt aatgttccaa agaaatagta aagttctgca
62341
       ataacagttt ctaaaaaaat tcaatcttta attttgttgt tcttttgata attttttact
62401
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62461
       62521
       ctttaaaaaa tgtttaaaaa ttttttaaaa atttttgtta tttttgttt agattcaggg
62581
       ggtacatgtg caggtgtgtt acataggcat attgcgtaat gctgaggttt aggcttctac
62641
       caaattaaat tottaaatag agooctottt cotgacocag agatgttata gooccagtga
62701
       ggtcatagtt cggcttcttt ttaaataaca ggaattcagg aacttgaaaa atccccatgc
62761
       ttttctctqq tataatttta qccaccctt cctccaqatq tccctqqtaq aatqcacaqa
62821
       tctgtggatg tattgagtgt tgatggtact gtcgaaggct gatggtggcc agcccctgga
62881
       gtctgacatt caactgggaa gcaaacaccg tgggacagga aggctacaga ccctcactcc
62941
       agattcagct tttgacccta ttgcccattg aatggttggg tgagcagttc tgaacaaggc
63001
       accaggacga aggtagcttg agactaggaa aactagaagc tacagccagg gaggactcct
63061
       gggaaagagt atggcctaag gggaatgtgt gtgtggtggg.caggtgggca gcaatggggg
63121
       agactgcatc tctgggagac agaggtcata gcctcacctg agttccactc tactcacctc
63181
       cctctccctg cttccaaaaa ttttagacgg ctatggtcag cctagaattt gaagtctgaa
63241
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63301
       atttgaagct gtgactctca tctatggatg ttcagctgca gagtctcacc agaataatgt
63361
       aatgttgagg ctgctggtgg cattttggag actatgaaag atacacaaac atggaaacaa
63421
       gatagtggtg acctggagca ataaactcta cttgtgtagc tgaggatgat cttgtacaga
63481
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63541
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63601
       gcaccagccc cctgccatgc acttagataa tggagggagg gttttgtggt cacatgtggt
63661
       aggccccaag cttcagattc ccactcatga ctctctttca ctccagtctg gtgacgagtt
63721
       agggactcta agctcaagga cccaaggttc cccgaaacag actcagccca gtcctactcc
63781
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63841
       tgccataatc ctgagtgcac gcactctgtg atgaggccta gctgtcacat gcactaattt
63901
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63961
       gatettaaca gtaaggagae tgetgtgeea attgteagae teeagtttge ttaggtetga
64021
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64081
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       cacacgtggt gccctgaaaa tgtccctggt tattcttctt tcagccatca tgtacttctg
64141
64201
       aggtacctat ttctatccta gtgtcaggcc atatgccatg atttctgtcc actcaattag
64261
       cagaaggccc cagggcactt tggtttgaaa actggctata tctgatgagg ctttgctaat
64321
       gtgctctcag aagcagagtc cttctcttat tgcctcctgt ggggagattt ggacctctgt
64381
       agcagagaag actgtaaagg tcgtagagaa actgggtttt cggaggctgc catgcccatc
       ttgtatacat gtatgcattg tgcaaccatt attcagaagg gagcataagt cagggcatgg
64441
       gaacagagac cccaaacaga tattggcttc caaaaaacgct caaataaccc catcccccag
64501
64561
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64621
       aggtgttcaa aggtctgaat gagtggagca tcaggccgat tggaggagag gagctgacag
64681
       cacaggatgt ctgtccctgg tgtgaagctg gaggagagac tggtggtatt ccttggggtg
64741
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64801
       attggcagaa gactagttag gtggtattct tgttgaactg aggcaatgga agggttagat
64861
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64921
       aaacttttat ttttactttt tttttagtct aaaactaaaa agctaacctt caccaatgtt
64981
       tactattata cattttaccc tcactcaact catgcattgg gtgtccatgt catgcatcat
65041
       atcagaggca agtcagggaa gagaggaggt tctacaacat gggggatgga gaaggggacc
65101
       acagcaccct ccctggccca cctgctttca aaatctattg ctaggtctta agaactattt
```

FIGURE 4-R

```
gtgtcctggc agtggataga catattatca gttttcacta aactcttctc acaaaagaga
65161
65221
       caagtggttt gaagacattc ctcaaaggaa cccatagact gaaaataata tgaacaatgt
65281
       aagcaaaagc aaactcagaa aatggcaaag ttgacgattt cttactacta atatgatatc
65341
       cattatgatg attagtcagc tcagtagtag tcagctctga caactaagtt caaatttata
65401
       aaaaagacta cttgaaacag ggatttacac caccatatgt tggcccttga ggtattagct
65461
       aataataata taaacatgaa atcatgatca gcaagacatg taaatgctat aaactcaggg
65521
       caagaagaca aacctctacg atttttttt cagggatttt ccaagtcatg caatacttag
       ttgtgtactt tttaaaaatt atttttggc cgggcgcggt ggctcatgcc tgtaatccca
65581
65641
       gcacctttgg aggctgaggt gggcggatca cctgaggtca ggagttgcag accagcctgg
65701
       ccaacatggt aaaaccctgt ccctactaaa aatacaaaaa aaattagccg ggcatagtgg
65761
       cgcatgcctg taatcccagc tacttgggag gctgaggcag gagaatcact tgaacccggg
65821
       aagcagaggt tgcagtgagc tgagatcata ccactgcact ccagcgcctg ggcgactcag
65881
       tgagattctg tctcaaaaaa aaaaaaaaaa atagtgctca gaaatctctt ttgaggcttc
65941
       ttatttaata gtaaaagaca aaatatcagt caacatcact ggaaaaaaca gctgttgtat
66001
       ttgccatggt taaagtgact gagttaatac agagagaaga tggtagtaca taaaaatgta
66061
       ttctgttgga agacacacag actttaagtt tgaagaataa gttttaaaac acatggtgtg
66121
       ttgtggaagt tggctatatg gttggatgca agttgctaac atgtttcacc ttgagtattt
66181
       gctatgcttt ttgataatga cattcataaa gaaatatttt ttgtgatcta ctaaaggaaa
66241
       gatagatatg ttcacaacag tgaacaactt agtaaaacat gctgtggttt ttatgggtga
66301
       aagtaaacca ctgagggagt ggctgccctc tctggaatac aaaatgaagg gtggttggtg
66361
       ttttgtatga ccagcaagac atgtaaatgc tataaactca gcaagacatg taaatgtctc
66421
       gttctaccac ttgtctcttt tgtgagaaga gtttagtgaa aaccagaaaa cgtaatctgt
66481
       ctatctactg cccaggatac aaatagttca taaggcctag taatatactt tgaaggcaag
66541
       ggtgtcatgg tcccattctc tgtccccgt gttgcacaac ctcctctcat ccctgactat
66601
       gcctctgata tgacacatgg catggacacc tgatgcatga gttgagtaag ggttccatgt
66661
       agttaacatt ggtgaatgtt aattttttt atttttagac taaaaaatat gtagaaataa
66721
       atgttttaat ttttctttta catttcaatg gatcattcta cacattctac tttgaagact
66781
       actgatttaa tgttaccctt ccattgcctc agttcaacat gaacaccacc tcactagtct
66841
       totgccaatg caaccactto ogotaccoot caccocotco acototcact gccactgtca
66901
       ccctcaccca accccaagca gtagcagcac caccaatctc tcctccaaaa ctqqqqqqtq
66961
       gttcgtgttc tggtccatga ggactacatg tgaaattcag caatcacatt attcatttac
67021
       aaaqtacaac aaqaaqttqa aqcaaqaaqa tcatqaaata ctatqqqatq tcaataatat
67081
       ggttaattaa aaaattaaaa tatagcagaa tctttatagc actttgtatt gagatgtgga
67141
       atgagactaa aaatctttct tatgattcca aggtttactg attatctcaa ggcaaacaac
       ttgaacgctg tgaatttaaa gatgagtttc cttaacaaag aacaagtgct ccaaatttgc
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67261
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67321
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67441
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67501
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67621
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67681
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67741
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       ttqtgagata tcttttttt tttttttaa agaatagcca ttaagaccaa gtatggacat
67801
67861
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67921
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67981
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       acaatttaaa attattgttt catctttacc acatccttta atttttttag tgttctttat
68041
68101
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68161
       gtatcagacc aatcagacta tggggtagaa ggaatacaac ttggtgctta catgagacaa
68221
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68281
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68341
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68401
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68461
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68521
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       ttaaaaccat gggagtggct gagatgccca gagtgggcct tggagtggga gagcgggctg
68581
68641
       gcacggtggg accctggggt gggaccacag agaaaagcca ggccqcggag gccqagaagc
68701
       tgtaggtacc caggtatgtg aaaaatctgg aggtgggggc cgcgggtgcc aactctggaa
68761
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68821
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68881
       ctttgagggg caggtgaagg cagagcgagg agggttggag agggagcgtg tgcacgtggt
68941
       gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtaggt gatccaagtg
```

FIGURE 4-S

```
69001
       accagaagga cgcctggaag agtggacggt tggcgaggga gtgtgtgtgt gtgtgtgt
69061
       gtgtgtgtgt gtgtgtatcc aagtgaccag aaggacgcct ggaagaaacc aatgcttgcg
69121
       ggttgctgca actacaggga gcaagtcacc tgtgcggggc cgagaccccc agagtctcgc
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69301
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69361
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       getteaggta geetetegge tetetetget eegeteegeg eecaggtagg geacegaegg
69421
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69541
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69601
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69661
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69721
       gcatggccct gtcgtccgaa cccggtgagt gcgcgcgagg ctgcgctgct gaccttgggc
69781
       cagccccgcg gaccctgcgg cccaggcggg aatcagcagc gccctggggt ctgaaccgcg
69841
       getteegeet teeetgeteg cagaggeggt ggegetgaet eeggteegat eeettgeeet
69901
       gtcccctgtt cctgtccctg tccctacccc tgcctctgcg gtggcccgag ccccagcggc
69961
       ctcaggtgag cgggcagcat cccqattccc tgqcqqccta gaatqqaatc gcaaggttta
70021
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       ggctggatgt ggacagctga ggtggacttc tacctggagg cgagggatgc actggatgat
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70141
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70201
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70261
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70561
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70621
       70681
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70801
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70861
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70921
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70981
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71041
71101
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71341
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71401
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71521
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71581
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71641
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71701
       agtgcagtgg cacaatctca gctcactgca acctccacct cccgggttca agcgattctc
71761
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71821
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71881
       acctcaagtg gtctggccgc ctcggcctcc caaagcgctg ggattacagg cgtgagccac
71941
       cacactcagc ctgagtctac gtttttagcc atacactcta ctcattcctg agattgccat
72001
       aggtggattg atctattata aataqctagt tcacttqttc attqttttat gcattcattc
72061
       attcaacaaa tacttgctga atgtcgacca tatttcaggt atggggatac aactgtgaat
72121
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72181
       ccttgtgtga gtcacacaca cctcacaaat gagaagaaaa atgaacccct ctatgcaagc
72241
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72301
       cttgagataa agtcttgctc tgtcgccagg ctggagtgca gtgcagtggt gcaatgtcag
72361
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72421
       gtgggactac aggtgcgcac caccatgccc agctaatttt ttgtgtttta gtagagatgg
72481
       ggtttcacca cgttggctag gatggtctca atctcctgac cttgtgatcc acctgcctcg
72541
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72601
       atgagacata attigattcc gtcctctcct gtcttttaga gtttgtaagg ggtgcttaag
72661
       tgataaaagg ggatgcagtc tagtctcggg caggagaagc gggccctgta tctggttatc
72721
       ataaattgtc ttgatgtttg ttcgaaaggg aaataaggct ttgagcttgg gatcagtgct
72781
       cttcagtcca cagagacatc ttggctgcaa gaagcagcaa caagttaggc tcaaggtgga
```

FIGURE 4-T

```
72841
       attgtgaggt cctgagaaga gcttgctctt ctgggacaga actgtatttt tcttctaaac
72901
       tgcccatgtt ctggggagtc ttcccgcctt ttggcttcag caggaccctt ggtcattgtt
72961
       acaacctgtg tcatcttagt ggagctgctg ctggtttctg tctgaacccg atgcaatggg
73021
       tctcatacct gtaaactggg ctccaggaag gcagctttct ctaagttgga aaatgaagac
73081
       tcaaggtgga ggqtgtttcc caaagccgat accacaagat attaataggt gtttttttcc
73141
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73201
       ttctttactg caggacttct caggtgttga atttgctagt agaaactgtg catgaatacc
73261
       cataagggac tacaggatgc agtgttttcc aagccttctg acctttcatg ttctgcagac
73321
       tgcactttga aaaatgcttg tttagactaa ggctagctgg gatccggtta aaggtgcaga
73381
       ataaaattcc ctgaacgtgt cggacttaaa tccttgggct ggaatcctcc cactgcagtc
73441
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73501
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FIGURE 4-U

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76981						
			cctcctccc			
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77281		-	tctatgtatt		-	-
77341	_		_		_	
		-	cataatcata	_		
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		_	-	-		
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78481			-			
			cagaggcagg			
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			_			
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			ctcaggtgat			
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FIGURE 4-V

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FIGURE 4-W

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       aagagactta gactcccaca caataataat gggagacttt aacaccccat tgtgaatatt
87301
       agacagatca acgagacaaa attaacaagg atattcagga cttgaactca gctctggaac
87361
       aagctccaac ccaaatcaac agaatataca ttcttctcag cacctcatca cacttacttt
87421
       aaaattgacc acataattgg aagtaaaaca ctcctcagca aacgcaaaag aatggaaatc
87481
       ataacaaaca gtctctcaga ccacagtgca atcaaattag aactcaggat taagaaactc
87541
       actcaaaacc acacaactac atggaaactg aaaaatctgc tcctgaatga ctactgggta
87601
       aataaggaaa tgaaggcaga aataaagatg ttctttgaaa ccagtgagaa caaagacaca
87661
       acgtaccaga atctctggga cacatttaaa gcagtgtgta gtgggaaatt tatagcacta
87721
       aatgtccaca agagaaagca ggaaagatct aaaatcaaca ccctaacatc acaattaaaa
87781
       gagctagaga agcaagagca aacaaattca aaagctagca gaagacaaga aataactaag
87841
       atcagagcag aaccgaagga gatagagaca tgaaaaactc ttcaaaaact caatgaatcc
87901
       aggagctgtt ttttttttga aaagatcaat gaaataaata gactgctagc aagactaaca
87961
       aagagaaaaa gagagaagaa tcaaatagac acaataaaaa ataataaacg gggtatcacc
88021
       actgatccca cagaaataca gactaccatc ggagaatact ataaacacct ctatgcaaat
88081
       aaattaqaaa atctaqaaga attqqataaa ttcctqqatq catacactct cccaagtcta
88141
       aaccaggaag aagttgaatc cctgaataga ccaataacaa gttatgaaat tgaggcagta
```

FIGURE 4-X

```
88201
       atgaatagcc taccaaccaa aaaaaqccca qaaccagaca gattcacagc caaattctac
88261
       cagággtaca aagaggagct ggtaccattc cttctgaaac tattcccaac aatagtttgg
88321
       agctggtacc attccttctg aaactattcc aaactcattt tatgaggcca gcatcatcct
88381
       gatgccaaaa catggcagag acacaacaga gaaaatttca ggccaatatc cctgatgaac
88441
       atcgatgtaa aagtcttcgg ccgggcgcgg tggctcacgc ctgtaatccc agcactttgg
88501
       gaggccgagg cgggcagatc acgaggtcag gagatcgaga ccatcccggc taaaaacggt
88561
       gaaaccccgt ctctactaaa aatacaaaaa attagccggg cgtagtggcg ggcgcctgta
88621
       gtcccagcta cttgggaggc tgaggcagga gaatggcgtg aacccgggag gcggagcttg
88681
       cagtgagccg agatcccgcc actgcactcc agcctgggcg acagagcgag actccgtctc
88741
       aaaaaaaaaa aaaaaaaagt cctcaataat atactggcaa accaaatcca gcagcacatc
88801
       aaaaagctta tccaccacga tcaagttggc ttcatacctg ggatgcaagg ctggttcaac
       atatgcaaat caatcagcgt aatccatcgc ataaacagaa ccaatgacga aaaccacatg
88861
88921
       attatctgaa tagatgcaga aaagtccttc aatataattc aacacccctt catgctaaaa
88981
       actctcaata aattaggtat tgatggaacg tatctcaaaa taaaaagagc tatttatgaa
89041
       aaacccacag gcaatatcat actgaatggg caaaaactgg aagcattccc tttgaaaact
89101
       ggcgcaagac aagtatgccc tctctcacca ctcctattca acatagtatt ggaagttctg
89161
       gcaggggcaa tcaggcaaga gaaagaaata aagactattc aaacaggaaa agaggaagtc
89221
       aaattgtctc tgtttgtgga tgacatgatt gtatatttag aaaaccccac catctcagcc
89281
       ccaaatctcc ttaagctgat aagcaacttc agcaaagtct caggataaaa aatcaatgtg
89341
       caaaaatcac aagcattcct gtatactaat aacagacaaa cagccaaatc atgagtgaac
       tcccattcac aattgccact aggagaataa aatagctagg aatccaactt acaagggatg
89401
89461
       tgaaggacct cttcaaggag aattacaaac cactgctcaa ggaaataaga aaggacaaaa
89521
       acaaatggaa aaacattcca tgctcatgga taggaagaat caatatcatg aaaatggcca
89581
       tactgcccaa agtaatttat aggttcagtg ctatccccat caagctacca ttgactttct
89641
       tcacagaatt agaaaaaaac tactttaaat ttcatatgga accaaaaaag agcctgtata
89701
       gccaagacaa ttctaagcaa gaagaacaaa gctggaggca tcacgctacc tgacttcaaa
89761
       ctatactaca aggctacagt aaacaaaaca gcctggtact ggtaccaaaa cagatatata
89821
       gaccaatgga acagaacaga ggcctcagaa ataacaccac acatctacaa tcatctgatc
89881
       tttgacaaac ctggcacaaa caagcaatgg ggaaaggatt ccctatttaa taaatggtgt
89941
       tgggaaaact ggctagccat atgcaaaaaa ctgaaactgg actccttaca ccttatacaa
       aaattaactc aagatggatt aaagacttaa atgtaagacc taaaccataa aaaccctaga
90001
90061
       agaaaaccta ggacattcag gacataggca tgggcaaaga cttcatgtat aaaacatcaa
       aagccatggc aacaaaagcc aaaattgaga aatgggatct aattaaacta aagagcttct
90121
90181
       gcacagcaaa agaaactacc atcaqagtga ataqqcaacc ttcaqaacag qaqaaaattt
90241
       tttcaatcta tccatctgac aaagggctaa tgtccagaat ctacaaagaa cttaaacaaa
90301
       tttacaagaa aacaacccca tcaaaaagtg ggcaaaggat atgaacagac acttctcaaa
90361
       agaagacatt tatgcagcca acaaacatat gaaaaaaatgc tcatcatcac tggtcattag
90421
       agaaatgcaa atgaaaacca caatgagata ccatctcacg ccagttagaa tggcgatcat
90481
       taaaaagtca ggaaacaaca gatgctggag aggatgtgga gaaataggaa tgcttttaca
90541
       ctgttggtgg gagtgtaaat tagttcaacc attgtggaag acagtgtggc tattcctcaa
90601
       gaatctagaa ctagaaatac catttgaccc agcaatccca ttactgggta tatacccaaa
90661
       ggattataaa tcattctata aagacacatg cacacgtatg tttattgcag cactatccac
90721
       aatagcaaag acttggaacc cacccaaatg tccatcaatg atagactgga taaagaaaat
90781
       atggcacata tacaccatgg aatactatgc agccataaaa aagatgggtt catgtccttt
90841
       gcagggacat ggatgaagct agaaaccatc attctcagca aactaacaca agaagagaaa
90901
       accaaacatc gcatgttctc actcataagt aggagttgaa caatgagaac acatggacac
90961
       agggaggaga acatcacaca ctggggcctg ttggggggtg aggggctagg ggagggatag
91021
       catteggaga aatacetaat gtaggtgtea ggttgatggg tgeageaaac caecatggea
91081
       tgtgtatacc tatgtaacaa acctgcacat tctttacatg taccccagaa cttaaagtat
91141
       aattaaaaaa agaaaaaaat taggatatag agggaaaaat tttattagtt gaaaaatttg
91201
       gctatctagg acagccgctt ccctagaatg ttttgagtga aattgagaaa catatgtgct
       ttatgaattg agcatagcac agctaaagtg ttgctaagtc acttcatttt atgaaacttg
91261
91321
       tgaaaataag aatggggaac tttttaaaca ttcaggatca ttgacaaagg agcttcattt
       91381
91441
       acacctgtaa tcccagcact ttgggaggct gaggcgggtg gatcacctga agtcaggagt
91501
       tggagaccag cctggccaac atgtagaaac cctgtcttta ctaaaaatat aaaggttagc
91561
       tgggtgtggt ggcacatgtc tgtaatccca gcaactccgg aggctgaggc aggagaattg
91621
       cttgaacctg agagtcaaag gtttcagaaa gccaagatca ccccactgct ctccagcctg
91681
       gctgagggag ggagactctg tcttgaaaaa gaaaaagtta gggagattgg gaagccgagg
       tgggtggatc acttgaggcc aggagtttga gaccagcctg gccaacatgg caaaaccctg
91741
91801
       tctgtacaaa aaatacaaaa attagctggg catggtggtg tgcgcctatg gttccagctt
91861
       tttggtaggc tgaggcacga gaattgcttg aacccaggag ctggaggttg cagtgagctg
91921
       agatcgtacc cctccattcc agcttgggcg gcagagcaag accctgtgtc aaaaaaaagt
91981
       aaaaataaaa ataaagttag ggagagagat tgtaacactt aagttaacag atagtacaga
```

FIGURE 4-Y

```
92041
       ttgcacttca ttttcatctc caggtcttta gggaggaagg gcagctggga aggattgagg
92101
       aagggagaag cgaaggtgag tggcaggaga tgagtggaga ttacagtagg ccaggagggg
92161
       ttgtggggaa gggaggatgg agaaagaagg ggcaggtttc cagaggagct cagggagaga
92221
       cagagggtgg ggctgtgagt tttcacacct gattggctgc aaagtgttag aatcaaagtt
92281
       acacccacct ggccaggatg ctggtcatct ggctgcatat gcggagtgag tgatctctgt
92341
       gcgcccctgc tctctctgta gggacccctg ttatagtgcc catcgtgcag catatttctc
92401
       cagataggct gggacctctg gtctcaagta cagggaaggt gtcagcccct cttagttccc
92461
       tccttagatg ggggtcccaa ttccaggtga gccaatgcag gggcagcgtg agcagcagca
92521
       gtgtgagcct atggaagtgg aggatgcctg tcccgcctga tggcattcag attcccagtg
92581
       tttgcaaaac tctgtgctgg tttgtgactt ctgattccaa cctttatttt agcgtaacaa
92641
       ttctcatgtg gagggctgc cagaatgagc tgagtgtgcg tgggggagga gttcaaacca
92701
       gcctccatgt tctgaaatgt ccccctctg accccattgc tccactgctc ccacccctag
92761
       tctggattaa gtgtctcctc tggggtccca aaatatccag ggcatctcat tacaccaacc
92821
       acactgtatg ataatctgtg gaactgtctg ggttcatctc agccatcaca gtcggcccct
92881
       ggaggcggga gttatatctt atctactcct ctacacccag ggcctggcac acagtagttt
92941
       attgaatgaa gtggggtcca cgtgtggccc ccagctcata gtacacatat gagaqcctqq
93001
       tgaaaggttg gctccagtgc ccctccctgc ctagtagtca tctggacaga ccacacaggg
93061
       cagtgggctt cagatggccc ctggtaagat gctggctatt ctctaggaga gcaaggtggg
93121
       cctgaagggc tcctcacttt agcatttgag tgctatatag ggaaggccct gggagcctga
93181
       ttccccagag cggaggaggg ctggggagtg gagcagagta agggagggga cttagtgact
93241
       gtcaggggca accaagggcc atagagcagg tggagcacca gacaggtgct gggaggtaag
93301
       atgctgtaac aacagcccag gtgacctgat caactctttg tcttgtgggc ctggttagca
93361
       agaatgtcct tgtgcgtcaa gaggataaat ctatttcagg gatgacaaaa ctgctcctgg
93421
       ccctttgagc cctcaggctt ggcctggagc tggtgtcctc acagccccac actctgctgg
93481
       ctccttggca ggagtgtgct tctgccaggt gcaagtgtgg gtgggggaag gagggggtgt
93541
       gccagctgta gcccagcaaa tgctggcgcc ccaggggcta gtgcaaggtg cagcaggtga
93601
       gatagtggac agacagacct tggcccatca gaaggaagtg ctttctaaca ggggcaccag
93661
       atcagttttg ttcatacaca cactcataga cacactcact cactgtatta gtttgcactg
93721
       ctataaagaa atacctgaga ctggtaattt ataaaataat gaggtataat tggctcatag
93781
       ttctgcaggc tgtacaggaa gcatggcagc atctgcttct gaggaagcct cagggaactt
93841
       tgactcatgg tgaaggcaaa gcaggagcag gcgtcttaca tggtgggagc aggagcaaga
93901
       ggcagcgaga gtgggtaggg gaaggtgcta cacactttta aatgcccaga tctccatgaa
       aactctcact agaacagcac caaggagatg gtgctagacc attcatgaag gatccacccc
93961
94021
       catgatccaa tcacctccca ccagccccta cctccaacac cggggattaa catttgacat
94081
       gagatttggg cagagacatg gatgcaaacc atgtcgcaca ccctctgaca cttacgccca
94141
       cacgcccact cactcagctc caaccctcta cctttactgg ctgggcctcg gttgtataga
94201
       atggatgcta gatatgggcc taggggaggt agaatttcta aaacggcccc tgcagatgtc
94261
       cctccttaat ctccagatgc agtgaataag atgagttatc actcctgtga tgatgttatg
94321
       gaatatggca cagttgacct taagataggg gggttattgg taggcctgat ttaatcccat
94381
       gagcccgtaa aaatagagag ctttctgagt gtaggagggg agggcagaga gattcaaagc
94441
       aacagcacaa tgaccactcc tggttttgga gatgaagggg gctatgtgca gggattggag
94501
       tgaggtcaat aggagttgag agtgacccct ggtcaaagcc agcaagcagc ctgggactcc
94561
       agccttgtgg gcactagacc tgaattctgc caacaaccgg aatgaacttg gaagtgaatt
94621
       ccttcccaga aactccagac aagagtacag tgtggctaac atcttgattt tggcctcttg
94681
       ataccctqag cataqaqccc agccaaqccc acccaqactt ctcacctata gaactgtgag
94741
       ctaataaata gctgttgttt taagccatca agtttgtggc aatttgttct gcagcaatag
94801
       aaaacaaatc caSggtcatc cttgggctcc atatagcttt tccaatttcc tgagatacaa
94861
       gctgtggtta acttccagtt cttccaagct caaggggagt gagccctgag gagttagcct
94921
       atctgtggtt aaacctatcc cttgtgccta cagagtctga gctcctggcc cgcagatgct
94981
       catatgtgac aatctggagc tcaactgaag accaaggttg tcgccataat ggatatcccc
95041
       aggaaggaga attctttggg caccagtttg tgggtactag cttcctcact ggggcagaag
95101
       aacattccta ggacaagcct ggtaggctgt tggcttaggc agcctcccag catttgggct
95161
       gtagtgtttt tttttttgtg tgtgtgtgtg tggtttttt ttaaactttc ttagctgttg
95221
       ctcaccttag atgtcacctg ttgcttcttg ttggtaggac cagacctcag gcagccttgg
95281
       ctgaggcatt tggaggtgag gttgcatgga aataaaaaca gtgagctgga aggcatgtgt
95341
       gagtgacaca gaaaccagaa tctcatgcgt cccagctgag gtcagaatgt gttggggagc
95401
       ccaaagtaat ggctcttcct ctgggtgtgg gcattcaaaa gatgccaaag ggagaacctc
95461
       atcctcaagg tgaatccgcc tctgaggagt gactgacaag gtggcatccc tggggcagga
95521
       tgcttggctg agctccattt gatggaggac agaccagaga aagctgaggc tgggggctcc
95581
       cagggctcag gttgagtttc ccgaagcagt ccagtgcatc acttagcagg accaggggca
95641
       aggggaaggt aaattcctga aaaggagcca cctctgtctt gcaggttaaa atagccttgt
95701
       cccaaagatg tgataacaca gggtaggcag gtgagaacca gagggccatg gcaagcactg
95761
       ggtgtgtaaa cacgggagga gaactgtggt tcttgaaaac tcggcagtga ggatacctgg
95821
       ccacaggcca agaggaagag agctgcttct gggtaagccc tgaaacttat ttggggatca
```

FIGURE 4-Z

95881	actgatttct	tcaggcctgt	aggtatcaca	ctagtacctg	gagaggagga	gggctctagt
95941	gggtcacagt	tgtcactgag	tccttgctgg	tggctgtggt	tgtggtagaa	taaatactca
96001	ggaagctact	gggcccatgg	cacaaggtag	ggcaggtggt	cagttggttt	ctggcatttg
96061	acactgtggg	atggcaccgt	ggggaggccg	ggttccactg	ggggcagaca	gaaacatgag
96121	gtaggagaag	agtgctgatg	gcctcacctt	aatgctgggt	aatttttctg	cagaagagac
96181	ttgcagtgac	ataatctgat	gtctgtttca	tgaatgagga	aggtagagtc	atcacaaatc
96241	agccttgcaa	ataagcatgg	gcttgtggca	ttttaaacca	accttgggcc	caagagccag
96301	tgtaatcatc	ttttggtgcc	aaggcaacag	gtccagaggg	acctgaattt	ggtgccgatc
96361	aatccctctc	cccaaacaga	ggtacatatc	tgtgcctgct	ctagcagcgg	cagtcaggat
96421	ggtacacggc	gggctagagg	agggagcagc	agggctggag	gctgggtgga	gcagccactg
96481	tgccatgggc	cgtgtgactt	tgtgccagcc	ctttcccatc	tctgggaaag	tgtctgtgag
96541	aagtaggctg	atcttgcaga	tctccttggc	acccagtagg	tctgctgcca	gccatggggc
96601	ctatgatgcc	tgtaagcttg	gatggcggtc	gctagtccac	ggtcctgagc	actgtctcga
96661	ctcctttgta	aaacaaggag	attggattca	ttgagcatcc	ctctctctc	tggctccaat
96721	gccccaaatg	tctaactgtg	tgaaatgcag	tgtgattgtc	tctctgtgac	cctattcctg
96781	gtcctttctg	agaccgttca	tatgttggga	ctgagagttt	gtgttatctg	aagccagcat
96841	gctgtccaca	ctgtggggaa	agcctgcatg	atttgctatt	gtcctcccct	ctagtgccct
96901	gtggttttag	agcccctgcc	atgtggtctg	ccatttgtct	ctctgtctcc	tagggcattt
96961	gcctgcttta	atcttctgtg	ggctgtgcaa	acagccctga	gcagtgcatg	gtgaccacag
97021	gtaggggtgt	ctggagggcc	gtgttctatc	tcaggcagac	atgtgtaaga	ggaaggcatg
97081	aataattaga	aacttcttaa	tggtagggcc	agcaccagtg	attaatcata	gcaaaattct
97141	cctgccacRc	acacagcaaa	gagtctttat	cactcacccc	aattagcttc	tgatgtctcc
97201	cacttttcct	tgtccttggc	tcttagaaag	aaaagtttca	agatgattcg	gtcccagtcc
97261	ctgtctctgc	aaatgccgcc	acagcaagat	tggaagggcc		

FIGURE 5-A

>2:179587401-179684100

1			tatttatgca			
61	attaggaagc	atgacagctg	gtgacagcag	caatacatta	caaattgtta	cagagaaaaa
121			atggtctatg	_		
181			ggaaataatt			
241			tgagtaattg			
301	,,,,		tgttttactt	_		
361		_	Ytagcaacaa			
421	,		taagtgtctt		_	
481	gcttgatttt	cttgtctttg	ctgtaccacg	acacttttag	atctgcgaca	caaaagaaaa
541			atgagtggat		-	-
601	-	-	tcatatttga		_	
661	-	-	atgatttcct			
721		-	ggttgaactg		_	-
781		_	tgcatgtcat			_
841			agacagtcct			
901		-	gacaggaaat		_	
961			tgagaagatc		_	_
1021		_	tctctatctt	-		
1081	_		attgtagaga		_	
1141			tagatacatt	-		
1201			ttctatataa			
1261		_	aagtagcagg		-	
1321	_	-	tgtttgaata	-	_	
1381	_		ttggtctcaa			_
1441	_		attttaatgc	-	_	_
1501	, , ,		taaatggcag	-		-
1561	-		aagtagaaga			
1621			ggaggctgag			
1681			gaaacctagt	_		
1741			tcccagctat		• • • • •	
1801			agtgagccga			-
1861			aagaaaatga	_	_	
1921		_	agctttctgg	-	-	
1981			cgttgcatat			
2041		_	ccactggcac			
2101			tgtcttcaat	-		
2161	_		tttagtttgt			
2221			atcaatggta			_
2281			ggtgaactga			
2341		_	ataagtgagt			
2401 2461	,,,,,	23 3 3	gccatgatct		-	
2521			attactactt	_	_	
2521			cacgctctcc			_
2641	-	-	catggtaccc			-
2701	_	_	caaaatcttc		_	
2761	-	_	ttcttaccca	-		
2821			gaagcattat			
2881			tgtgttcaat			
2941			tcccagacag	-		-
3001			agttgtgtgc			
3061			tgcaccccag	_		-
3121			aattgcacag			
3181			tttctqttta			
3241	-		gaataaacag			_
3301			ctctaccagt			
3361	_		cacctggttg			
3421			gggagcttct			
3481			taaggcaata			
3541			tatqtqaqtt			
3601			tagaaaacaa			
3661			ataggaagtt			
	, - , o a , a c					

FIGURE 5-B

```
aaaccttttt aaagacattg gttatgcaga aaagatagtg aaatttttct ctttctaccc
3721
       caattggtgt cttgtagagt gcttcaggtg tatttctaca acactttaaa ggcaatacta
3781
3841
       ccatatgtta atatgttata gacttaaaag cactatacca atatagttaa gacaaatatt
3901
       actactttga atgatgtaca tatatgttta tattaaaaaa ttcctctaaa aattaaataa
3961
       atggataaat tatttagtgt agctttaatg aacttgcttt taaaatatat tttgtattat
4021
       tgtgttagta ggatattatc aaatcagtcc tcatttatta atatttagca tttcttgaac
4081
       actatccctc aaatatacag tctatggtat ttgtccatac tggccataca atactaaaca
4141
       ttgatgttta tataattcct ctctatggct ataataaaat gaatgtattg agccccagtt
4201
       acctggcagc catgcctata ggtgctttac atacattata tcttttaatt atgctcataa
4261
       aatcaaatag gtctattaga tttctagatc accatctcca ttcctgagga ggaaataatt
4321
       gggtcagaag accaactgaa gtactaacct gttgagaaaa ataaatcttg acaaggtaga
4381
       gattggatta taaactaatg ggagaagcat aataaacaaa acaatacaac tttgcaatta
4441
       cttttgcatc agcctaataa gagggctggg agatgcccaa gctttgagag tttccctttg
       gctgggaaac tctcaaataa ttgtgattat agacaatcag ttatgacttg aagtggttcc
4501
4561
       acatatattg tctcattcta ccaagatcag attcctggga tgaggaaatt ggctggtggt
4621
       acttgagaag catgccccaa ttaaaaatgg tagcagctaa ctctgattga ttactgtatg
4681
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4741
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4801
       tatctactat gtatcaggtg atattctggg gcaaccatcc actcttgttt tcatagagct
4861
       taccttctag caggtactat ttttcagatg ccaaattcta ggcactaaaa cggaattcct
4921
       agcctcataa aatatatttt ctaggattga atgcaatcat atactcaatg tattcatgac
4981
       agaaggagaa cgagagacat gatatatatt gaaggcaaga ttcaaattca gcatctttqa
5041
       caatgaagcc ccgacttttg accactatag gatattgtct tccaaaggat acctttcaca
5101
       caagcattgt ccatagactg aataatgtct tatataaatg tattattctt ttgaattata
       tgtagatgct attataatct aataatttta gttttgtcat tgtattttat caatgaagaa
5161
5221
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5281
       ctaattttt tattgtgata aaSaacacat aacataacat aaacaaccat tattaagggc
5341
       5401
       tagatttcca ttaagcttca aattatgcat gagagatgtt tgtgatggag gagaagctga
5461
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5521
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5581
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       caacttctgg aactaaagaa agaaaccaca agatttgtca tgattaagtc accatagaga
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5701
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5761
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5821
       acaaaagcct gcttcttagg ttttattttc agctggaagt agcgaggcat tcctaccttc
5881 .
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5941
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6001
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6061
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6121
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6181
       aatagcccat gaaaaagtgt aaaaacacaa gagagcatgc aaaactctac attaatttgt
6241
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6301
       agaatattag aacattettt gtgetaagaa tgaagaaage acttggaatt tgteeacatg
6361
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6481
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6541
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       gtcattttgt tatgtaccag tgccagtaaa atgcaatcag taagtattga atgaatgact
6601
6661
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6721
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       ttcatggaac ccagaaatta gaagaaatga cttctgtgag gctggtttct gacactatca
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6841
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6961
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7021
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7081
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7141
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7201
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7261
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7321
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7381
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7441
       aagctcatct ggggtatatg aaaatggaca cccaatgggt gttcaatagt tttgagcaac
7501
       cagatgagga tctggccatc aggtgctttc tgaaaataac ttctcaatag gtcttttaac
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FIGURE 5-C

```
7561
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7681
       gattatttct gatggatcca caaaatatgc tgaaatctgt ccctacatac cattgacata
7741
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7801
       tctggtctca gagataaaca ttcggtggat tcttctYtcc actacatatt tgtgtcgttc
7861
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7921
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7981
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8341
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8401
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8461
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8521
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8581
       gacacttatg aggacaagct ctgtaaatgc agccgacagc aagagtgccc agcatccttg
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8761
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8821
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8881
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8941
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       ttatggacta ctgatgattt ttcaaaacat ttagtatgta gacaatacct gaacctcctt
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9121
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9241
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9601
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9961
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10081
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10741
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10801
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10981
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11221
11281
11341
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```

FIGURE 5-D

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11401
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11461
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11521
       agaccagtct gtgtttgtca cttggcttaa tttccacaYt cttatggaac cattttactg
11581
       gaacagtgtc atgggaaaca ctaacttcaa aggcaacagt ggcattttcc aaggctgtca
11641
       catcctttgg ctttttaatg atcttgacag ctaagaggaa aattggagca attcagtgat
11701
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11761
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11821
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12061
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12121
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12181
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12241
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12301
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12361
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12421
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12481
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       agctacggtc tgatctgtga gtggcttgga gatggcccca cctttggaac aagagatgta
12781
12841
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12901
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12961
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13021
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13261
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13741
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14101
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14161
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14401
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14461
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14641
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14821
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15121
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15181
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FIGURE 5-E

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15361
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15421
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15601
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15661
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15721
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17581
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17641
       gcagtctccc cttcaagtac tctaactggc tctgggtaca agacaatgtc tggcttttgc
17701
       ttttctttct gatctgttgt tacacctgta agtgcacctt catgagccat tctctctaat
17761
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17821
       ttctcatctt taacaataag ggtagcagat gtgtgatctg ttccatattt gttagtggct
17881
       ctgcaagtaa tgataccact gtctctagaa tatgcaacgc cataatcaag gctgcagtac
       ccaaattcat tgatcatacg gagcctgttg gctgcttcaa gtggctttcc atcatggagc
17941
18001
       cactecacca ccategttgg gtcaccaatg ggtgttagcc tgcattcaaa gtgggcaggc
18061
       ccaaagcgct taagtcttaa ggaagtgagt tttttcttga aaaatggttt ctgttgtttc
18121
       tetttgteat agagateace ttetteecat tgetettgge catategeaa atggagggge
18181
       tocagttctg gggctgcaat ctcctttgct ctatatgtcc cccgtgggat gattaacttt
18241
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18361
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18421
       18481
       tattatttcc atacttacct gattttggga tatttatgag gcacaatgat gtcactgttt
18541
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18601
       gaaccttcct ttatattgac atttttcagt ttttctacaa acatcggttt tacctgatgt
18661
       tccacagctg aaagagaaag gtcatgattt agagggagta aggctgaaat acctgtttat
18721
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18781
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18841
       gaatcactgg gtgtggcagg gacaataatt agtgattgag taccatcttc tttaatgact
18901
       actttatggg tatagtcatt gacaatttgc tggcctgtga aaatatgttt aaaagaaagt
18961
       agattttaaa atagttttta aaaattgtta gatgcataca taagcttgtt tttgtgtttt
       tatgattcat gagcaaaaac ttatcacgct taccatcatg aaaccagaac gtctctggca
19021
```

FIGURE 5-F

```
taggtctacc aacaaccttt aagtcaaatc tggcagtttg cccttctaaa catttgaaag
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19141
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19201
       cctccagcct acgtccaggg gacattcttg caggggacat ccgtgcagga gacatccttg
19261
       caggtgacat ccgtgcagga gacatgcgta taggagacct gctcactgaa cgtggagaga
19321
       qaqatctqca aaacaaaqac acacaatact ttcqtqaqqc ataaaqaaaa Ctcaqcaaaa
19381
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19441
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19501
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19561
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19621
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19681
       gtaaaccaat gaatacattt atggaaaaat aaaaaataca cattctttat ctcagaggag
19741
       gaaaacatag aaatgaattt ggaaacaaaa caaagcaaaa caagactcca tctacacatt
       gcagccagac tgacttggag tttgaatgct ggcaccaccg cttacaggct ggatgaatta
19801
19861
       agacaatttt catagattcc cagggcctca gtgttcctat ttccaaacca ataatagtca
19921
       tctttttatt gcagggctgt tgtataaatt tacatatgta aaaatcaggt gtcaaataag
19981
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20041
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20101
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20161
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20221
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20341
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20401
       tcttgtagaa agtccatttg gtatctttct ccatgtttga tgcgcttgcc atctttgtac
20461
       caagcaatct gcaaagaata ccatgcatgt atgaataaaa tttacatcaa atagttatat
20521
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20581
       ttggtaatgg atatccagac atcttgcaat gaaaagtgac acccatcccc tcaagaattc
20641
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20701
       ctgccatctt ttcttctcca tcttcttcaa gaagttcttc taatgtagtc tttattattc
20761
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20821
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20881
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21001
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21121
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21181
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21241
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21301
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21361
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21421
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21481
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21601
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21661
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21901
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21961
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22261
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22321
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22561
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22621
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22681
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22741
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22801
       ccaaataagt taaaatattc attttaaaga atatttattg ctagaatcag tcatgaaatt
22861
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```

FIGURE 5-G

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22921
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22981
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23041
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23101
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23161
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23221
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23341
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23521
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23581
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23641
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23701
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23761
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23821
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23881
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23941
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24361
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24421
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24481
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24541
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24601
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24661
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24781
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24841
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24961
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25501
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25561
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25621
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25681
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25741
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25981
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       accacagtgg gagattcaaa attaagaaat tattgaaatt gttggtaaat gcctaagaac
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26401
       tttacatgta tgcttacttt ctcctgatga cagagattat aagggagaag atagggcact
26461
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26521
       cttgctatat tgagtatata aatatatgat ttctcaatgt ctgtctttat tattgaaaca
26581
       cattcacagt taagttactc tgaaatgtct cacagcataa gtaaaactat gctgtgtaac
       acactacctt tcacaaaatc attagaacaa tagtaatcaa aacaattgag tttgagctgt
26641
       ccctgaaatg tgaactagag agaagcctgt gtggatttgt ctctcctcag aggtataaga
26701
```

FIGURE 5-H

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26761
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26821
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26881
       ccattggcct accccagaga tgctctgttt cacaggttag atacttattt cctttaaaca
26941
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27001
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27061
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27361
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27601
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27781
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27841
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       atcatttact tatacatctt ccgtgttttt aaaaaatgtt Catgggcctc ttaaaattag
30421
       cctgcatgca attttaatca acttctggaa gattcccaga tgttaataaa atgttgacaa
30481
       taatggtgaa gagataagtg gagaaaggga tatgtagtaa tattaacaat aataaatttt
30541
       tttagtttcc aattatttaa ttgtctaaaa aataaatttg gttaatagtg actcatacat
```

FIGURE 5-I

```
aaqaaattca qaqacttgat attaatgtat tacaataagg aatttcacat gatatgtggt
30601
30661
       attaatgtat tataataggg gatttcacac ttggaacaac aatagtcacc tttccatggg
30721
       taacttggat ttgttcttgt ctagtagcca tagtttctct agttctcagt attgtttctt
30781
       gttctttggc tttagcagta gcaactgcta ttgtagacaa ggcagttttc tcggcttcct
30841
       ttctcatctg attattacag taaaatcaag atttaagttg aacagggctt caaacacaca
30901
       tagtatgacc cttcccctt cctcatgggg atgcaagatg gttattcagg gttaaataca
30961
       caaqaqaaat aaactttcac cqqcaatqtc tacatatact qactqaqaat cacaaaactt
31021
       agaaatgtta gctattaaaa aacctctaga tgagtccctg tgtcactttt taaaaattaa
31081
       qctaaaaaat qctaatcttc atqcaaaqaa taatqqtqaa taaaatqaat tataaatgtt
31141
       acaqatqqat qaaaatcaaa tgtgcagata aaattaatga taatcagtct catatttacc
31201
       attttgtttt tagttaggga ttttaaaagg caaatacaga ttaataattc ataccatatt
       gtagttaata gtttactaga aattagttta aagatgaact tttcacagct caaatatctg
31261
31321
       tattcacctt ctcctgagtt atttgcactt gttctctttt ggtagtaatg ccttctctac
31381
       ctcttgatac taaatcttgt tctttgactt tgggtgtggc aactatgact ttaggtacaa
31441
       ctgttttcct agtttccttc attatctgat catacaaaag aaagtaagaa aatagtcatt
31501
       aaattccata aatctttaat aaaagaaacg taagtcaaaa agaaaggagg caaaatttct
31561
       tcctattcaa qgaaatttta attgcactaa aatatatcat ttgagttact ttgatcatcc
31621
       atactgtttc actggcaaaa atatcaaaac aataagtcca gtttaaaaaga aaaaaatgtg
31681
       attagcaata aaagactaat gagtgctatt ttgtactttt cacatttttt aaaactgcaa
31741
       tctctgagac atttcagtag cactgtaaat agcacataat tttttgtatt atgaattgac
31801
       ttgtttacgg acatctgctt caataggaag atattaaagt gaattattat attatattag
31861
       taacaagcca aagaaagtct gaaagttagg aatgaattga cagtgaaagg tagctgtgtg
31921
       ggaaaagaaa ttttctattt gcattataag aagaggtgga agtgaagaag tgatgattaa
31981
       gatccatgat gaaaatgtag gtgatttgca aatgaaatgg tgcaagagtg actttcacat
32041
       tggcaggaag tcatcacctt ttcataactt aggtgcattt gatcttgttg tgtggtagtt
32101
       tcttcttqaq ctcccgggac tgtttctagt tttgtggact ttgcagtggc aactaccacc
32161
       atggatgcag cagttatctc agtttcctgt cttatctgat gtttagagta aaataaagat
32221
       ttgagtttca aaagatacaa aagcaatggg aagacatcct tgaaacactc aggaaaatac
32281
       aggatgctta gtggtgaacg ataaaatgtc agatttccat ttcaggggcc tacacttgtg
32341
       cttaatacat agactgcttt cctgaggaat gggcttcttt tctgcccaca tgcgccttag
32401
       caaattqtcc tagaactqaa catatctcat cttgagacat gtcaacgtgt tagggaaccc
32461
       ggtgggtggc tgctgacaag tggctggaaa accataggcc agctgaactt gccagtcacc
32521
       agcattgcaa tggcaatggg gatttctatg cctttgatta tcctaagtag ggttcttgct
32581
       gctttcaaaa tgtctcactc acagtaagga gagggaaatt cagtcagcag cctctggtca
32641
       qccttttaaq tqtacaaqqt tctcaactgg acctttaaag aaagtagctc taagatcagc
       aaaqaqcttq agttcaagga ggatgagcac aggcgccctc tttgacatgg aagaattcaa
32701
32761
       gataaatgcc tctctcctga cacttaaagg tttgatttca catacgggag agatgtggat
32821
       tttagtgaca ctgagattgt cctcacacag ctctacggca caacagcagc aaatgcttct
32881
       aggtcactgt ttatcaaccg tgaattgaag gaattttttt ttttgaggaa gtatttgctt
32941
       tctccgatgt ctggcatatc ctcactttcc cttgctattt attcggggtg tttatggctg
33001
       33061
       tttgtgcatt acaatctaag tgactgaggg cttaggctat gcacgaagaa accaactgtc
33121
       ccqqtqqqta actgqactqq catgatatct atcatccatt tatgtatqtt ctagaaagtt
33181
       catagatgtg ccctaaactg ttctgtagac aatctcctga aaactgatca agtgagtgga
33241
       aaatagtgca atgtgaacat aatttccatc ctgagtttca atactagaca tagaggaaca
33301
       ataacaaaaa atatacaacc aaagacttct ccatttaagg gttttgacta taagctacct
33361
       gcagctggct gtaatgtgat attgtcaaca aactacaaaa tatttagaaa atcagactta
       ctgcttcttg agttacttgt ttctgtttct tagtaatttc ttcagaaatt ctagtttctt
33421
33481
       gttctttggc tttagctgcg gaaattacta cctttggtac aaatgttttt tcagtttctt
       ttcttatctg caaagaatga tttaagaaaa aactttattt cctgatgccc aatgaaataa
33541
33601
       tatggtgttt attaaatata acaacatagg aatttgaaga tgtaaaatcc cttttctgca
33661
       gatgtcacta aataaaataa ataatcccat gttcataaat aagatcatgc tctttctctc
33721
       cttaaactgt aaattatgta ggctgcttag agaaaacaaa gttgaattca acactttgtt
33781
       ttgaacagca gaattgtagt cttctttaaa atgacttcca atgtttacaa atagatctat
33841
       ggcaatatta ttctgtacta attctgtcat ctaaaggtaa tcttagaata tatatcagaa
33901
       tggaagactt tagaagtaat tttgtctgat ctttttattt tacatgtgag aaatcaagca
33961
       tggataattt ataatctgca tttatacaat atttttgttt tgtcagtttt cctaaatact
34021
       gtgaagaatg ctgtttccat ctgggcacct aaggtatatg cgtatgtagg gggacagttt
34081
       tetetatttg cetetttgce atteteaaat ateteateae tgaaacaeag gateteaagg
34141
       ctgaaaggga cttgaaattc atcttctcaa accacccaac tgccaactgg ttccactggc
34201
       caagagetet actaactgge attttccaat etgtccccaa atgecgecaa ecatgggget
34261
       gtccttttca ccttttctgg tcatttggct tgttaaagcc atgctgtcca ttccacttca
34321
       aactcatgtg caaatgtctt ccgaaggagc caggaagcag ttgctaagat ttctaaagca
34381
       aagtgagttc agtgtctcct ccacttttcc ccattcctgc ctcagcatct atttcttcct
```

FIGURE 5-J

34441	cctggtttta	gccatctgtc	ctctccctat	agtcttatac	ttagtgcatc	cccagatcaa
34501	tataataaaa	cccctatttc	tactcctggt	atatatteac	agagttett	ttcatactca
		-				
34561	caaggggagc	attcagggac	actaccaaac	tttggtatcc	agtacccaga	aatttacaca
34621	tacaacaagg	ggatcttatt	agtatgctaa	caaccatgtg	acccaaggaa	caacactctt
34681			gtgttgaccc			
34741	aacccatttt	cacctgctca	tgagttacgt	gcatctgctc	ttactttata	gtaattactt
34801						
			tcttgttcct			_
34861	ttacagcagt	cttctccgct	tcctttctta	cctgcttttc	atagagaaag	gaagaaaaca
34921			aaattagttc			
34981	tctactaaaa	aatacaaaaa	ttagctgggt	gtggtggcgc	acacctgtaa	tcccagctac
35041	tcacqaqact	gaggcacaag	aatcacttaa	acccaggagg	cagaggctac	agtgagcgga
35101			gcctgggtga			
35161			aggatttaga			
35221	aagctggaat	gattttaaac	tgtaacagaa	aatctattca	aatgcgaggt	gggacattat
35281			ccagctatga			
35341	aaaaacaaaa	gtcctttggg	gaaacttaga	gaaatgtaat	gccttccctg	aaatagtagt
35401	ttccacatcc	agtgtgtgca	gtgactgagc	tctggaattg	actootetet	atttctctaa
35461			ttgaatacca			
35521	ggtatttctg	gcctactctg	ctcttgtgat	actcacattg	tcaacacctt	tgacatctcc
35581	gaccaccttt	tactcagaaa	gttctaaaag	tctagaccct	actagactca	aggetatett
35641	cagaatgaat	tgagcacagc	tgcatgccaa	gctcagtgga	tggtggttga	gttaatgtgc
35701	actgaaggac	gtggctctgc	gggtgcccca	tggcagcctc	gcacgtacct	gttcttgagc
35761	aggttggatg	tacacaacaa	tcgtggttgt	cctctgagca	atctactcta	cancactaat
35821			ccatatcaac			
35881	tttgtcagca	tcttqtttca	cctagattag	aaatqaccaa	gtagattact	tttttaaatq
35941			aaaagcatac			
36001	actcatacat	aagcatttat	tattgccaag	aaatacagag	actgtatcat	taaaacctgt
36061	atattatqqa	aacttcacag	attggagctt	ttgtcctaat	taaaaatggt	tttacaaagc
36121		_	tcagttgctg	_		-
36181	tccaatttat	acagactgag	tttcatggca	gaaatccagt	tggagaaact	agaatgtgaa
36241	ataaqqaaaa	acaaaaccat	tctgacagta	cctctttagc	accagtggca	acageetetg
36301						
			gacacactgg			
36361	cttgctcctg	gacaccgtat	ctcccttccc	atctctcttc	tgtcctgatc	tgagtagagg
36421	tigtcagcgt	tatctctctc	atctcagcct	cagatgagga	aaccacataa	ccctcttact
36481			ggacctgtgg			
36541	gcaatggaga	cctaacagac	ctgatggggg	atgtggagat	tcttgctgct	ggagacacgg
36601			aggtcaagaa			
36661	aaccacgaga	egaaaageeg	gaagtgcttt	aaggcagagt	tttaaaatgt	gtgcctccat
36721	aacccattca	gagggtaaat	aatgtacttg	gaagtaattt	gttttaaatc	tcaataaacc
36781	tattcttatc	tactataacc	ctgtaagaga	atcagettta	attccaaata	agetggagat
				-		
36841		-	acattaaaaa		_	-
36901	tctttaatat	gcagccaaag	gaaagacatg	tcaaatccag	caacctctgt	attccaaatt
36961			gggggggtta			
37021	aggettetgt	aatcaaaatg	cttgtgccac	tettgaetaa	gcagcttaag	ccatttttt
37081	ttttcccctg	caggacttcc	cacagccttt	actatgtcag	tatgccttgt	gaatttccag
37141	appannagaa	cacatectea	ggaagctttc	tacaacatat	tactagatac	aggttgtgca
37201						
			ctttagccga			
37261	tccatatttg	tttacactcg	cccccttgt	attgcactct	ggacttattt	taaatatctt
37321	_	-	actaacttaa	-		
				_		
37381			agaatagttt			
37441	tgcaagtagc	atcagttgaa	gaatttgggt	gctaaatccc	agcactgatg	gccaaaaaag
37501			ataattctgg			
37561			cttaataagg			
37621	attgccctat	cattgcattt	tattaattct	gcatataaga	aaatgtttat	aaatgcatct
37681			agcttacact			
	-		-	-		
37741			tttctctaac			
37801	attaaccagt	ttcacqaaqa	aatgtttatt	ttctcqaaqa	atggcttttt	ttgtgtgaaa
37861			tgaagttgta			
		-				,,,
37921			gcctttgaaa			
37981	ggtttccact	aactgaagaa	aagcaaagag	acatgtgctt	ttaagtttca	ccctgtqcct
38041			aatgggttta		-	
38101			aggacacagg			
38161	tttggtcatt	ataggagagt	gcttatttct	gtacttacaa	caaaaaataa	tcacctggtc
20001			-	-		
38221	acadcdadat	acaatgcacc	ttattcaato	aaatatottt	gccttactct	acaacaaaaa
38221	acagcgagat	acaatgcacc	ttattcaatg	aaatatgttt	gccttactct	acaacaaaa

FIGURE 5-K

```
38281
       tcaagattaa actatgagat atttaggaag cagtctatct ttgataacca ttatttctc
38341
       tgcaaattgg cattttattt cttaattatt ggaaagcaaa attttggggc aatttggatg
38401
       gttattaatg aactttcaaa actgctaaga tggtcaaaat gctccatggg atcagggaca
38461
       ctccatgatt ctaaatgacc cttaggcttg ggttttaaaa tatagttagg ttgttatctc
38521
       ctcaagaaat tgcatttggc ttgtgttgtg atttcatggt gtgcaaactt ggatttagcc
38581
       tgagactgaa cattttttt tattcgactg ctagacatgt tttttaaagt aagctttttg
38641
       ttcaaggttt catgttagtg tttgccaata tctttacatt tttgtggcta aaacaataaa
38701
       aattggaaaa catctagcat tttttttcac atgtttattg gacttttaca ttgcctctta
38761
       tgttaaatac ttttttgtat cttttgtctt tttttgtgtt gcatttttt cctttaaaaa
38821
       ttaatttgtg gatgattttt aatgcattta gtgcatttat tggttatttg tcgtaagtgt
38881
       tgcaaacatt cccccagatc catttctttt aatccatttc aatattttgc ttgtttatgg ,
38941
       gtcttatcca gcataagctt acgtaatttt gtatgttata tactgtttct aggctggtgt
39001
       tgtctacctt gtagccattt tatgtttatt gtgatacttt tatggcagag gcaatgaagt
39061
       accttgagga ggagaaaggt cttaaaattt tttcacaagt gctgtttggt ttagaaatga
39121
       ctttttgctt ttgccataca tacatgttga tttttatgta gttgaatctg taactgtctt
39181
       tttaaaaagct ttcacccata aatgcttttg cagattgtct tctcttttt tttcatttt
39241
       taactattta atcaagctga aatttattct gtaaatagtg agaggcagag gtttatgttt
39301
       gtttgcttcc agatggatag ctaattggac cagcattctt tattaaaata cctctccctc
39361
       ccctgaattg aaaggccact ttgctttttg aattccctat atacttggat ctattatact
       tggatctctt tctggactct ctgttttgtt cccctggtgt atttttctat tcatttacca
39421
39481
       ataccatact gttctgatta tagtaacttt acagtatgtt tgaatattat ttaggtcaac
39541
       tatctcctta ttattctttt ataaaaaatt ttcttggcag ggaacatcca tgtgtttttt
39601
       atttcattta aattgatcaa taaacacttc tttgctcaaa ttttgtacat ttttcatttc
39661
       atcatattaa aagtttcatc atgataaact aaatcccaaa ctttcaaaac tgttgtggac
39721
       aatttacact tgattatata atttctqaqc cctgatcatq atacatgatc accttctaaa
39781
       atacttccat attaagtaag catagaagtc cattttattt.tctagataaa ataacacaag
39841
       catatgcaaa atatttaaaa ggttttactt accatctgaa tataagaata ttggcataat
39901
       tattttctat ttacaaggca ctttcaacta attatctcat tgaagcccca aaatgcagct
39961
       tgagatcatt cttattgtga ctctctttaa tttacagatg acacaactga aaccttaaat
40021
       aaactgctta acttctttaa ttccagttac ctatcaataa cattgaggat aataattctt
40081
       acaggttgtg aacatttaat gagataatgt atgtatagtt ccaatctgat agaggaagtg
40141
       atccatatat aataacaatt attttattat ttatacttat tgccctaaat caaactgtta
40201
       agtgatcagg ctgatttgtc cttagggctt tgaactctaa cttctgtgct cttctccttt
40261
       cactgtgcca tattttggcc cctaaagtag atatttatta catgaaatat aaataagaat
40321
       tcagaagttt ataagggtct tcaatttacc tgtggacagt gaggatttgt gaaaatcata
40381
       ttcagtaact tcttggttta cctcctttgt cacctgctac atttttgagt gcatgaaact
40441
       tacacgggag gagggcaggg aagtgctggg aagagaagtg cgtggtccct agcgaggcct
40501
       gtgcccatgg acctaggtga ggacaaacac tcctgccttc ccgcccaaat gttgcatttc
40561
       ccaagatcac cctgacctgc cacgcccaca ccctatgcct ataaaaaccc ctgagaccct
40621
       agtaggcaga cacacaagcg gctggatgtc cagaggaaca cggagcccca caacctgccc
40681
       gtttgtatgc tcccctagag gtttgagcag cgggacactg aagaagcgaa ccactctccg
40741
       cgtcgcatgc cctgcgaggg ggacaaggga atctttctcg tttcaaaacc tagttccaaa
40801
       atgtgcaata atctgctctc tctatggcag ctttacctga ccggagatgg ggtcggtgcc
40861
       cgcacgtgtc tgaccgggga aggggagtgt cttatgggcg atggggactg ctgccgagcc
40921
       agctgtgctt tggcagcaat agacggtggt gttggggatc ttgactttgg cttcggagga
40981
       atcctgggag gtgttttatg tggcagctgt tgcccagcgg caccatctat gaccatctca
41041
       actgttgcaa ttgatctggc atcaaagtgg gcttcaatct tctgtaaaag attaaaacaa
41101
       agcccacgtt gaggaggaat agctggggac gcaacagcct gaaaggcttg aaaaccaaca
41161
       gtatagaaaa ataccttttc aattcgggtt tgtcttgatt ctgagatctg agcagtcgaa
41221
       acaattgtct ttgtcttttt agcaggtact tcttcttcac ctgtgggaag ggaaagatga
41281
       atgtttggga gggggcacaa tgacccattt taaaagagat tctgttaatt ctgactacaa
41341
       agtcaaaaag attttctgga tatcccaatg gagaaaattg cagaaagttt tggattttgc
41401
       atgaatataa attaggttta aaaatagaaa atgttcatta caagataaaa atttacttag
41461
       aatgattttt taaaatttca ttatttgcca ataatttgga aatgtagatc acttaattga
41521
       aaccetttee agtttataat gagatteata ageacagatt gettetatte tgegeteetg
41581
       actagaatct cagggacttt tcatgggtgt cgaaaagcca gcttttatat cagctcacag
41641
       cattettece agggetgtga gaggtggcaa gtggaegett ggeeceattt agacacaaae
41701
       cagetetete ceettetete tgtteeteaa eeteeageae gtaeettgaa eeagtaatte
41761
       agcaqtcqaa qtaqctcttc caacqctatt qqtqqcattt actqaataqq tccctqaqtc
41821
       ctcagggtat gcttctgcaa tcagtaagct gtagaggtcg ccttcttgtg aaatttggaa
       atcaagggag ctctggattt cggctccatc ccggtagaac ttcaccacag gtgtagggat
41881
41941
       tocagtcact ctcacttgga gtctcacttg gcttccttgt ctcacggtca tgctctgcag
42001
       tcgttgaacg aagttgggtg gtgctgtctc agctgcgggg acaagagaac aaagtcaaga
42061
       gtgagagcca gggtgctccc tacaaggtat ttttaaataa tcacagctcc aattccaaaa
```

FIGURE 5-L

```
42121
       ccaggtgatg actcgccaat ctaaacatcc ttgaatgtcc ttgaacccag ctcacccagc
42181
       aatgacagca agaatgggag ccaggagatt acagaaggct ttctcaccac catattttat
42241
       tttatttgct ttgttttgct gagcagttta ggccaccacc ttttgtttct ttgttttaaa
42301
       taaaagctct agattttgtt ataacatttc ttgagaatct ttctggtact tcccctcta
42361
       cctcacatct agcgctctat taatatgtga aagccatgtt gcatattcca gtaagttgca
42421
       ttaaaatgaa ttccagtggt tgctacgatg ggtgtacctg ttacttaaag aatcattaca
       tttttaattt aatttttaaa attctaaacc ttctccaact tgataggtat tcaaataacc
42481
42541
       caaatattta cttgcattta aaacgttaat cccaataata acattacttc attttaattg
42601
       tgttacagaa aggggatttt tttggttatg ttgaaggaaa ttttttataa gtgtgaggag
       tgagtggaat taactttgac atgattttga gtaataaaca acagcaggtg ctgccaaccc
42661
42721
       tgtgcatttt ccatttgtga attttctggg tgcatgctaa agttctacct gatgttactt
42781
       gatgtggttt ctgcttaggt caattatagc cctataattg aacatcattg aaggtaaagt
42841
       ttattggata agcatatgta actttacgWa gctcatgtaa gatattgtta taaaacatgt
42901
       aaaggcatgc aatattctgt atactaatgt ctcactaggt agtaaaggat agagaaaaac
42961
       aacagaggcc actaagattg gtgataagtt ttctggggaa acagtgtcat gcatttgaat
43021
       aataaacaaq catttattt cttctqqqta tqtttacatq cctcttaaat qqqtqqtctq
43081
       tagactaccg gcatcagaat tatctggatg cttgttaaag tgtgaattcc tggagattca
43141
       cacttccctg gagaatatgt cttattcctt aaaggactta taaacaaggc tccaagcttt
43201
       tctacttgct gagaaacatg atttttaata tttccttaac atacttttga gtgtttaata
43261
       tgtgtattga gaaactgatt ctcagtcact tttacgatgt actctagagg aaaattaaat
43321
       tccaaaaggc aaacaacttg gttataaata attcagcctc cagtagaccc ttctgtagtt
43381
       taagagctgc atctacctct gcccatagct ttttctggac tcctttccca atttgctgga
43441
       gatgtcctct gggggagcag aggattggca ggtccccagc agcctacctt tcacgagaag
43501
       ctcagcagta ctagtcgctt gtccagatcc attggtggct ttcagggaat atcgtccact
43561
       gttggcttta gtcacggcgg ggatcgtcag tttagcgcgg ccatcgctaa aggagatctg
43621
       cacgccgggc agagtggaag tggaaatcac ctggccatcc ctaaaccagc tcacctcagg
43681
       aactggaaaa cctgaagagc aagaacaatt caYctttatg tttgaatggg caccacaaag
43741
       tectetgete tgteccatea tgtteaetge ettgteegaa tetgtaaaag ettteeagea
43801
       tggaatgcca cttaatgata gggaaaaccc tacagttgca tgatcagtgt gtaaacctgc
43861
       agaccattag gaaggcagga agggaggaaa ctgagaccaa aagaggccta atgatttttc
43921
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43981
       qcctaqqqct ctatctqatq caatttaata qacaacatta aaatcatqaa aqqqacttat
44041
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44101
       agtgaagaac aaaagcagca aactgatctc cagtttctgc ctgacaagcc caggaggcat
44161
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44221
       aagtgcaatc agtaaaaaca ttgtaacatg gacaagcaat ttctcataag agactaatcc
44281
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44341
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44401
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44461
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44521
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44581
       tggactgatt tatgggtatt ggatattttc agtagtgtct ttgtaataat ttatttgcat
44641
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44701
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44761
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44821
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44881
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44941
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45001
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45061
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45181
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45661
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45721
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45781
       ttggactaat tttccgaagt gaaagcaggg cttaaacttg gcgtcaagtc ctgcagcaac
45841
       gttaacttac tggagaggag gcaaaggaaa aaaaaacaaa agtgtgaatg tgtgagctta
45901
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FIGURE 5-M

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46201
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46561
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46621
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       46681
46741
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       atatttataa agttgacatt gattcagaca ttatctgatt acttaaaata gttgccagaa
46801
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46921
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46981
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47581
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47641
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47701
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47761
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48781
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48841
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48961
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49081
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49201
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49561
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49681
       aagatcttta taatgactca gctgagagat ttgtgaaact ctacttagag ggaggaaaat
49741
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FIGURE 5-N

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49921
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49981
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50041
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51481
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52681
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FIGURE 5-0

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56821
       tcaaaatgaa ggaacactta tcaYctgtaa tgtgaatctt tgtctccctc catctctgct
56881
       gatagattgt gatttgggga cacttgcagt atagtcgtcc ttcagtatcc ttgtgggatt
56941
       ggctccagga ccccctaacc cccagcggat atcaaaatat gtggatgctc aagtcgctta
57001
       tataaaatag catagtattt gcatttaaac tatgcagatc ttcacatatg ctttaaatca
57061
       tctctagatt ccttataata cctaatacaa tgtaagtgct atgtaaatag ttatgttqta
57121
       ttttttattt gtatttttt tattttgggg tttttctttt ttcagtattt gtgatatgca
57181
       ttttgttgaa ttcatggatg cagaacatgt gagtagggag aggcaactgt attgttaacc
57241
       catcagagac tacattcatt agaggttagt tgagtaacaa ctgttgtaag agtatatgta
57301
       agtttaaaaa acagtaagct ttgaaaaaga taaaagtaag tcctggcatc cagaagctgg
57361
       cctttgtaat aaatgatgag ccaatattga tgcattatta ctaaagttca taatatacat
57421
       tagggttcac tgttgtttgg acattctgtg ggtttcgatt gatgtttaat gacatgtatc
```

FIGURE 5-P

```
57481
       caccattgca gtatcataca cagtagtttc aatgccctaa acatcctctg tgctccactt
57541
       gttcttcatc ttcttccttc tctccctaaa gcctggcaat cactggtttc ttattgtctc
57601
       tgtactgttt tcttttcag aataccatat agttggagtc atacagtatg tagcctttc
57661
       agattaactt ctttcactta qcaatatqca tttaaqattc cttaqtqtct ttccatqcct
57721
       tagtcgtgta cttcttattg cctaagattc tactgtatgt atgtatctca gtttgtttat
57781
       ccattcacct attaaaggac atcttgtttg cttccaagtt ttcgccatta tgaataaagc
57841
       tgctataaac atctgcatgc aggttttgtg tggacacaag ttttcagctc atttgggtaa
57901
       atgccaagga aactaattcc tggattgtat gacaagagta tgttcagttt tgYaagaaac
57961
       tgccgaactg tcttccaaag tggctctgcc gttttgcgtt cccaccaaca gtgagtgaga
58021
       gttcctggtg cttcacatcc tcactagcat ttggctttgt cagtgctttg gattttagcc
58081
       attctaatag gtatgtattc tgacccattt tttaccataa taaaataagt actttgggat
58141
       aattagggag tattctacaa taagaagaga atgagggaaa taaaacaata actttaaacg
58201
       tggctcctgg gtggtagacc aggctcattc cctgagtaaa tcattggttt tcatattcta
58261
       gctttctagg atgagattaa aatctgcacc taagagaaat aaggaatgag aactttgggt
58321
       tactcattaa ggttatatct gcacattaga tttctaatgt acttataatt ttacagtaat
58381
       agctctaaaa gtagaaagga caacaaaata tgtaatattc acatgggtta tggatacttc
58441
       cacatatgag tatttatact tagaaacagg ataacctcca caaaagagtt ttagttcctg
58501
       cccctttacc taagtggaca actggttctt gctagtactt tttcatactt ctagtacttt
58561
       tgtttcctgt gttgtatttt tgggcaaaaa cttttgtgtt tagcttctgt ctgaaatgtg
58621
       ccacatgttt atttctttaa gagaaaaggg tgcatattgt cttgtgaata aatatttcat
58681
       tcatttatgt gttgtatacc tgagaacatg gcctcaaata taagaattta gctgaaacta
58741
       ctgttggttt aggacagaag tacttcctag aatcagaaag actcatgctc tttttctgtg
58801
       gataatatag aaaaacatag agttatgaaa cacaatatat tcttctgaaa ataaagacaa
58861
       aaccacatga cctacttcag tatctccagg taccacttag aagtcatctt tgaaccaagt
58921
       gacacatggt cctgatcttc tggacactgt gcagtgtgga agcagatctc atccttcctq
58981
       gaggttgaca ggtctaacac tttctaggaa cgttagaatt ttgcttcata ctaaaaggaa
59041
       aaggaaattt gaagttgcta agatacacat gtgtaatatt ttcgttctct ttttctttat
59101
       59161
       ctcccttctt tcaatggagt ctcattctgt tgcctaggct ggagtgcagt ggcacaatct
59221
       ccactcactg caacctgttc ctcccagatt caagtgattc tcctgcctca gcctcctgag
59281
       tagctgggat tacaggcatc cgccaccatg cctgcctaat ttttgtattt ttagtagaga
59341
       cgagatttca ctatqttqqc caqqctqqtc ccaaactcct qaccttaqqt qatccactcc
59401
       cttcagtctc ccaaagtgct gggattacag gcgtgagcca ccgcacctgg cccacatatg
59461
       caatattttc aatgtgttcg ttttcagaag tctttctaaa caatgtcaaa tttcttttta
59521
       ctgcattctt accacctcct aatgtctagc aatgatcaat aattcccctg actgaaaaac
59581
       caaaagcaaa agtaaaaaca aaaacaaaac ccataaaggt gactttttaa aattttattt
59641
       taagttccag gatacatgtg caggatgtgc aggtttgtta cataggtaaa catgtgccat
59701
       ggtggtttgc tgcacctatt aacccatcac ctaagtatta ttccccacat gcattagcta
59761
       ttcatcctga tgctctccct cccccaaccc tcaacaggcc ccaaggtgtg tagttcccct
59821
       ccctqtqtcc atctqttctc attqtttaac taccacttat aaqtqaqaac atqtqqtqtt
59881
       tggttttctg ttcctgtgtt agtttcctga agataatggc ttctagttcc atccatgtcc
       ctgcaaagga catgatctca ttccttttta tggctgcata gcattccatg gtgtatatgt
59941
60001
       accacatttt ctttatccag tctatcattg atgggtgttt gggttgattt catgtttttg
60061
       ctattgtaaa tagtgctgca atgaacatac atgggcatgt atctttataa cagaatgatt
60121
       tatattettt tgggtatata eecagtaatg ggattgetgg gteaaaeggt atttetggtt
60181
       ctagatcttt gaggaatcac cacactgtct tccacaattg ttgaactaat ttacactccc
60241
       caaaacagtg taaaagcatt tgtaaaggcg acttttatca agactcttga atagagtcat
60301
       cttgtgaaat tccactttcc tcacatataa gggagaaaga agggcagaca gaaggaggaa
60361
       cttgttctta agctactaaa ttaccaagct ttactgggga tctgtctgag taagagtttc
       caaagtaaaa aagctacatt cttggagact attctagaga cagatttaaa cagaagtaat
60421
60481
       aaagacgaca tttggaacta cgcatgtagc cattgattgc aagtgtactt aggggccttt
60541
       ttgccaaaaa atgataacct acacaacttt ttttgctgtc aaattccaga atatagactt
60601
       cagtctgttg aattttgcag gcttttattt gatacattta attgaacatc atcattatca
60661
       ttttgctgat atgtcagggc agtggtatgt caggaatttt agctctcata acaaatttat
60721
       tcaactactt aaaactattt agtaatctac ccaggataac taatccattt aagaagaaca
60781
       aaaataagaa aaagtttcaa taattaagaa acagtaaaat agctttgtga agagcacatt
60841
       atttgctgga ttttattttc tRaattgtac tgacaaaaca ccagtgtgta atcttgacca
       agettatget atettgttte ettaaatagt ggtteteaac cagggatgat tttetgeeag
60901
60961
       gggatatttg acaatatttg gagacatcat ggttgttaca tctgagggtg gaggtgctaa
61021
       tgacatctag tgggtagaac ccataaatgc tgctaaacat cctacagtgt ataggacaac
61081
       cccccaaaca cacagaatta tctagtccca aatgtcaacc ttgtatcaag gttgaaaaat
61141
       cctgctttag agaaatacac cacaaatacc acattttcct catatttaaa taattttaat
61201
       acatatacag atatctcatg aaacattcat ctcaaaacct aagcaaaata cagtttttta
61261
       tatagaacat tttctggtca gtgtacacac aagttgaatg gtttttgaaa agcattctac
```

FIGURE 5-Q

```
61321
       tgcattaaag gacataaata aataaatata tttattaagc ttctctcact aagtaaagca
61381
       caccactgat acttcctcct gcttatctga tacataaaag gacattaagc catcatttcc
61441
       tgcagtttat gttccataac acggcagttg attagaaaga tgtagttact tctgtttgaa
61501
       aatqtaqctq ctqctctqcc ctctqqctca ctttqaaaat ctqtqqttct qaaaqctcaa
61561
       ggtactattt ttactcttcg tatttggctc tgacctgtga gctacRttcc tgcttctcat
61621
       ttcccttggt ttggccacac cggtggagag tggggctgtg gtgtgttttt ttaaggttgg
61681
       gggaggggtt gtagttactc agacaagatt ctgataagtt cacgctcagg gtggttttga
61741
       ctgaaaacta gaatttataa ttttacaaat cggattctcc ttttagatat gtatttttat
61801
       taaacatatt atatcttccc atgaaaacag aaacatggca aataataact gaatattgtt
61861
       gggcatttaa aaatattttt attgaggctc aagcttaatt tggaagaaaa ttgtqaacta
61921
       tattctattt gtaattactt tacatgcaat aaagtaattt ttccctgaga atgagatcta
61981
       aagttttcag attaaattga aatgaaagaa tttttttaaa aagttattaa ttcatatgag
62041
       ctgttctgaa gaaagcatta gaaatgtgtt aaagcttatt tcaaaaggga tcataataga
62101
       aaaataattt gacttaatgt ctatataata aaggctaaga tttttaaatt gcctgaaact
62161
       ggtactgagc tcttcattaa agcaggtacc atgtgcgtgg acattttgat agcccttttt
62221
       agagtgctac agtcttataa gggtatctat ctatgaagtt cctcaaggtt ccacatgtta
62281
       aagatgtcaa agtgactttt tattttctat gttctattat accactatgc atttttataa
62341
       tactcactgg acacaaaaca aatgttaaac taggtttgca tttgtctaga gaatgacaag
62401
       atctatgctg actttctttt ttctaacata ggaataaatt tttcatcaac tagctatatt
       cccagttatt tcatcactca acaaagccac aactgcatga aagggcttta agcctgggac
62461
62521
       ttttgggggt gaataagagc ctgattattt gtttgggtaY accaagtttt tagtgaacca
62581
       tatttgaagt cctacaatca tatatattt tatatttttt ctttattgaa taaatagaat
62641
       ttgttatgac tgccaaaaag tacactattc tgagcaaaca aaattattac cttatctgtc
62701
       ttctgcttcc caggaaattt cctttaaatt ttgttctaaa ccttgactgt tctcttgatc
62761
       atttggcccc aaacaccaag tgcttggcaa tatcacctgc ctgttccaat gagaaaatca
       agaacacact gtgtgtttaa taccccttag agatcagtga gagctagacg cacatttaga
62821
62881
       aatggtctat tttgcaccat aattcacagg caaggaacat gagggtcaaa gattttagtg
62941
       gcctaaatcc tcagagttct tctgtagcaa agctaggatt agaatttagg tttttacaca
63001
       tgaaaaaatg ctcatcatca ctggccatca gagaaatgca aatcaaaacc acaatgagat
63061
       accatctcac accagttaga atggcaatca ttaaaaagtt aggaaacaac aggtgctgga
       gaggatgtgg agaaatagga acacttttac actgttggtg ggactgtaaa ctagttcaac
63121
63181
       cattgtggaa gactgtggtg attcctcaag gatctagaac tagaaatacc atttgaccca
63241
       gccatcccat tactgggtat atacccaaag gactataaat catgctgcta taaagacaca
63301
       tgcacacgta tgtttattgt ggcactattc acaatagcaa agacttggaa ccagcccaaa
63361
       tgtccatcaa tgatagactg gattaagaaa atgtggcaca tatacaacat ggaatactat
63421
       gcagccataa aaaatgatga gttcatgtcc tttgtaggga catggatgaa gctggaaacc
63481
       atcattctca gcaaactatc gcaaggacaa aaaaccaaac accgcatgtt ctcactcata
63541
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63601
       ctgttgtggg gtggggggg tggggggga tagcattagg agatatacct aatgtaaatg
63661
       acgagttaat gggtgcagca cagcagcatg gcacatgtat acacatgtaa caaacctgca
63721
       63781
       aaaaaaaaaa agaattttgg totttagoto otocaaatag taacatttta agaggagtaa
63841
       tacagaatac tccaattctt taaaacaagt gctcccttct ctatgaatac aagattgaga
63901
       atgggctcaa aagcatgaca ttttataaaa ttagtgttcc actattttaa tgagcaatat
63961
       ttaggatttc aatttacttg cataaaggta catgataacc tcaacaaaaa gcctacattt
64021
       acccaattaa aaaggattca gatggcccta tgtttctcag ggcaacatca atggagggcc
64081
       gtttatctca tctatgttat ctctaaatgg aaatgtttat atcagacata taaaggcata
64141
       tccatcatta gaaatttaaa acaaaagtga agattgtaat ttattttcag taacatgtac
64201
       agccagtgtc atataattta aatatcaatt atactctgat ttcaaatatg tctgttaatg
64261
       ttattaaaat aaccatgtaa tctttgcact gtatatggag tctgtttgag ccaacctgca
64321
       aagtttcaga ttggtggaaa aagaaatatt tctccatgtg tccacatatg aaaaggaata
64381
       tagcacaatg agaagccagt acatttgact gcagaaaact gtcttaactt gctttgatta
64441
       ctatccttcc ataaaacaaa ccactactct gcaatgggat gtttaattgg tgtacgttaa
64501
       tggtggttaa atattaacca ccatgattat tttttctctg agttggagaa atttcattta
64561
       ttaagtgcat tttgagtcaa tagttatata agaataagca tcctctatct gcaaaagttt
64621
       gaatgagata atcagattaa atttattacc tttagaggaa cttaatgtca aattatactt
64681
       taaggaattc ccagtaaagc taagaaacag gcaagcaaat tctgttgttt ccaggtattt
64741
       agtagactta atatacattt tattattagc atataaacca ttagcaataa aaaagaaata
64801
       aacacacaaa acatttgttc ccqcaqtaat catgtatqct ttaqtaacct taaqatatqa
64861
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64921
       ataactaatg gattgaaaaa accaacagct gcttctcaac taagatttat gatgttatga
64981
       cgttgttatt acattaaaat taaagtaact tcaaagttct atttagaaat aattcttttt
65041
       ggtttgctat caatgaagaa tttaaatgaa tttatatYtg aggttgctat atgtgtacac
65101
       ctatcttaac aatgttttcc ccccttccaa cagctatctg gaaatcttgt ttgaMatata
```

FIGURE 5-R

```
cagattttta attatctatt ttaaaactgg aattgtgctg agtcttttat ccagagcatg
65161
65221
       catataagta actototgta tgataccact gttaaaaatga gagaagctta tttottoato
       aaatctaggc cataagttgc taatggcact ggcgccatta gcatgaggtg tttttctaac
65281
65341
       ctgatcacat catatatcac ctgggcattt tatgtattac tgaattcata caagaactca
65401
       65461
       cttgaaatag tttgtattca ttcacaatga tccttatggc atgtaacaca ctctgctata
65521
       taattttgat taagttaacc aacaatttct tatatttaaa gaaatggtat aggcttttct
65581
       aattotgaga ttototacga gatggtatca ttocgctaac tgatttaatt tttgcctaca
65641
       atggattaga gtcagagcac agaggaatga aactcatgtg ccaagaaaaa gtcagctgtg
65701
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65761
       tcaagagttt gggaccagcc tggccaacat ggagaaacac catctctatt aaaagcacaa
65821
       aaattagcca gcatggtggt gtgcacctgt gccagctact caggaggctg aggcagaaga
65881
       atcqcttqaa cccqqqaqqc aqaqqtttca qtqaqccaaq atcacqccac tqcactccaq
65941
       66001
       ctgcaactga ggaccagccc ctgtacctta gactgtgctc ctgacttgtc caggaacatc
66061
       ctgttaaacc tgggccatct ttcatggtgt tcataatcca ttttgggttc tcaaagtaaa
66121
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66181
       actttgtata tccatttata agtcctggat ggggtcttta cagtgctcta ctgtttatac
66241
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       taagaccaaa aattactctc aagaaaatgt ttaatgtaaa tgaagaaaat aattatactt
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66481
       ccaaaatagc cgtttgtatt ttatcattta attaattaac aaactaaaat atgactttat
       gaaatactac ttttaaaggt gtaatacagt ggttggcata ttttagctta ggtttctaag
66541
66601
       aagaaatctt agaaataata ctagcagcca gggcccatcc ttgctgatag aaaagtacat
66661
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66721
       ctccaggatg tgatgtcaga ggccaaaagg acttctttta ttttattttg atcatgttat
66781
       tattggagaa agcccagctc agcaatcctg taattacaat ttccttctat tttttctctc
66841
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66901
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       cccccaccc cccaccccc accaaaatat cagaggaagg tgcaagaaaa agcaagtgtg
66961
67021
       acatqtcqca actaqatttc aqqtttccat aatqtctqca accaacatat qqaaaaqqqq
67081
       caatttetta cageetgeet ttgecatggt etetggagat geetgateae tgeaetgaea
67141
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67501
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67561
67621
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67741
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67801
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67861
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67921
       ggaaagttgt taattattgg ttcaatatct ctaacagata aagggctttt caggttttct
67981
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68041
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68101
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68161
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68221
       ctcgttttta agttttcttt tattctgctt gctataggct taaaccactt ttctttctct
68281
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68341
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68401
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68461
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68521
       ttattaattt cttgtttcat tccattgtgg tctgaaaacc tgcttttgta taattactat
       tcttttaaat ttttaatgga tgatatatgg ccaagaatgt ggtctatctt ggaaaatgct
68581
68641
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68701
       aattagatga agtagattga tagtgctgtt taggtcatgt atttcctaat ttttgactgt
68761
       tagtaatccc attttttgaa cttctctatt ctccttcctt atattgtata tattcttact
68821
       ttggttatat gtctaaagac aactttcctt ccccttcct cgacccctgt tgtgaataat
68881
       ttcagcttcc tctagaactc tttgcaccat agtgcactta gggggtgatg ttcacataga
68941
       agatgaaaag ttactgatgg actgaaatgt actagggtga tcccttcaaa tcagcaagga
```

FIGURE 5-S

69001	agctgaggta	ttctagcaca	ccccaggagt	gctggtttga	aaggctggct	ggtgtctagc
69061					ttcttctaaa	
69121					agagggtggc	
69181					aaagtccaaa	
69241					ttcctcactt	
69301	ccagcgattg	caatctctgg	tgcaccttgg	cttatagcag	ctgcattact	ccaatctctg
69361	cctctgttgt	cacgtgtcat	gtactgcctc	ctccctgtgt	gtctcctctg	tgtctctgtg
69421					tagggtccac	
69481					tcatgtagaa	
69541					cagaatccac	
69601				-	tcctcaccgt	
69661						
					ccctaagtgg	
69721		-	-		gaaattatgt	
69781					gtgataagaa	
69841					aaggcacctt	
69901					gcagcagctg	
69961	ggttctggag	caaatgggca	tattcccctt	tctgaccctg	ccaagtaagt	ggtttcctac
70021					gtttgtgtgt	
70081			_	-	gcataatatg	
70141					attttttat	
70201	_			-	aataccattt	_
70261					gggacaaagg	
70321		_		_	ttgatgttta	-
70381					gatagaaaac	-
70441					.atctattttt	
70501					tgtgctaatt	
70561	acacattctt	gtctatacaa	ttatttctgc	actcttgctc	tttaaggaag	ataggaagtt
70621	aattttgtgg	tacaaaaagg	aggatccaat	gaatccgatt	tgccatgtcc	tgggttacac
70681	aaatgaaact	gctgttgaac	agaaggaaga	gtgagcaggc	caaatgctca	aactctcaac
70741					ctgcactgat	
70801					tgctgtggag	
70861					ttgaattcat	
70921					atgaattgtt	-
70981						
					ttccaatgca	
71041	cegettatta	taaatggaaa	acagtetgte	atgccttggc	atttacattg	acacaatatc
71101					acttatttca	
71161	taaaatgctg	tgcatacaac	aggagtttca	aaagcttcag	atggtgattt	ttagtaagaa
71221					agatattctt	
71281	atttggaatt	caaatactct	taagttcttg	gatttggctt	tctttatatt	tacaagtttg
71341	tatgaaatac	tggtttcaaa	taagatctgt	tcacagccca	gactactgag	ccccagctac
71401	aattaaatat	tgatcattta	cgtagtgttc	taaagaagta	cataaattct	ggttttgaca
71461					cataccggat	
71521				-	atgttggaac	
71581					tattattta	
71641					agcccagagg	
71701					gagtgcttca	
71761						
					tctttgtctt	
71821					tttatctttg	
71881					gtcttaggta	
71941					ttacagccta	
72001	actgatgctc	aaacctgcga	ttcctttgtg	tatattcagg	ggcgtggctg	ggcagtgcag
72061					tgatgggtca	
72121	caggggaagt	tgtgtctcag	cagaactgga	acataagcaa	gagttaagtc	acatgaagat
72181					ctggagagaa	
72241					gggggtaata	
72301					tatgaactac	
72361					ctattttaag	
72301						
	yactatyayt	yacayayytt	accallattg	accadeatag	ctaaaaaatt	licigeatet
72481	igitcaaata	cctaaatat	catagaatat	tcagagattc	aaatgtacag	attcctacag
72541					atatttatac	
72601					gaaaacttaa	
72661					taagagttta	
72721	aacgttttct	ggtgaaaatc	ttgagtttaa	ttttcaccag	aaaacctgct	agacaaattc
72781	taaaagagct	gtaacacatg	taatttttaa	actttcttt	cattttagtt	ttcttgttga

FIGURE 5-T

```
72841
       aaatgttttg atattactaa ccattcagga ttttctctag aagtaaatgg ttataaatta
72901
       tgtatatacc ttaaaataga aacaacactt aaatttccta ggtcttacat ttttaaccag
72961
       taactgcaat tgatactttc ataagaataa ttatttgctc aagacagaaa tcccagcaaa
73021
       aaggaaaatc acacttaact ttttgaaatt aaaacataac cagaagaata actgcgtaat
73081
       tattctttac tgctgtggga gtcaatcaat agcccagatg aataggtaga tggataggta
73141
       cacagaaagc tatctgtact atatcttgaa tatcagcata gtactcttct gatctttgtg
73201
       ctcccccacc cccacctttc tctttctctc tctctctaaa aatggatttt gcatgcttt
73261
       ttccatcata accatggatg catatgtatc tcattctgct ccccaaagag ttaacatgaa
73321
       caagcatgca atagagaaag caaaccagga attcccatgc cctaacaacc ccaacacaca
       aattcaacca tgttgacaaa atgggaaggg agatcctgcc aaattaataa gaaagagaaa
73381
73441
       gtgggaagag agacagtttg ttaccgggtc tcacctgcct tctttgttca tgaataggtt
73501
       tttactcttt agcttcaacg tgggcaacag cagttaggca agattcacac attatttgaa
73561
       attggacaaa aaggatacaa gaggccggct atggtggctc atacctgtaa tcctggcact
73621
       ttgggaggct gaggcccagc ctggccaaca tggtgaaacc tggtttctac taaaaatgta
73681
       aatattaggt aggcatgcct gtaatcctag ctactcagga ggctgaagca ggagaattgc
73741
       ttgaacccgg aggtggaggt tgcagtgagc caagatggca ccactgcact gggcaagaga
73801
       gcaagactct ttctcaaaaa aaaaaaaaaa aacaaaaaa aacaaaaaa agatagttaa
73861
       gagaaatttc ctagaatgct gtgtatacaa gcttttaata tagttctatc aaaatttaga
73921
       aggaaactga gatttaattt tttaattaaa ttggatatgc agcccaagaa agtatacqcc
73981
       aactttttac ttgactacac atttcacatc ttcagataac attcagtaac tttttaataa
74041
       caacttgaat acattacatt taaatatttt gattatttgt agacagtctt ccagcaacat
74101
       aattaatttc ttcccttcat caaaaatctg taatgaatta ttctttcaac taaagatttt
74161
       cctcagcata ataagactac atttaaaatc taagaagcaa atgcttccct acttcaagct
74221
       tatttttaaa aggaagccaa aaaatgatct tttctgaata aagtgtttca gaaaggcata
74281
       gaatacttca atattatagt aataattatt gtaaaaggat agaattcatc tcataccatt
74341
       ctattacgtt tccccctaga acaaacaaaa tgtatcctcc tgagtttaat ttcaagtctt
74401
       tgaaaagaat gcagtcttca gaaattagat aggaatttaa gctctaattc ataaaacatc
74461
       actttcctcc atggaactag ttgaagatta catattaaca gcactccttt aatttaatat
       tctaaaaaaa cagcatctaa aaaaaaagaa atagtgagca ggaggccggt ctgatgacaa
74521
74581
       attacattaa acaatatcat tatccttagc cctcagtgtt ttccattttc cagatgttta
74641
       aaagacacaa aatgaaaact ctcaattgcc caagaggtag atgatgaact cattttccag
74701
       acaggaaact gaggcaatga ggctttgcca taaagtataa aaatggtcat cagcagaatc
74761
       aagattagaa gcagaaacac ctggttacac attgctgctc aaaacacatc aatagaatgt
74821
       caggaataac gttggttctt tcttgcaacc tgtgttccat cttgctgtat gacatgcaga
74881
       gctgacaaaa gatggaaact ctatttaaag ttgatggcac atctatcctc caatgtcaaa
74941
       cccgtgagag caacatgagg aatgattatt tacaatgaca tcatcagact caggaacgta
       gtctacgttg aaattacaca gaatgcattt cggtaacaag atcaagacat ggaaagcaaa
75001
75061
       attaaaggac agctaatgca aaaatacaac atcaattcaa tagttctact gatattccct
75121
       acaaagggat gttttaaaat acaattaaaa atatattatt gaacaaccat atttgaaatt
75181
       tagcacattt ctatgccgat gtcagccttc atctgcacgc ccttaaatta ggagggaata
75241
       ggcatagaat aattttgctg catattatgt tgaaaacatc tgtttctaga gtacaaaaat
75301
       ctgttcttat ccactacaga taatttacca agcttctcaa atatattaaa cgctccagaa
75361
       aatttgatta tttcacctag cagtggtatt agccaaacaa gtatggtgat cagactggag
75421
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75481
       ttaggcacat gagaatgatg tccattggtg ccaacaccac agttattgtg tgaggagcca
75541
       gtacattagg gacacactaa catagacgac acacagggtt atccagttta ctcttgtgat
75601
       tggcagcctg cagttacctg tcacgtggag gatgacattg gaagagagag cgccgctaga
75661
       gttttgggcc cgagccacat agaggcctgc gtctgccttg catacctttg gaatgaacac
75721
       cgaatgcctt gtctccttgt gtaaaacctg taagtgccca tctgcagaca atttctggcc
       cttcttgtac ctgaagcaga gaggcagttt ttaaagtcag gattgctgtt tattcacatt
75781
75841
       atttccaagt tctaataatg cttgcaaata ggcccattac cactgcaata ttctcttagg
75901
       attagtagga accttgtagc cacaacaaat tccagtgggg ctctttatct ttttttcttt
75961
       agtaggctag attgcagtag cagaatcaga gatcattgcg gtctcaaact cctgggatca
76021
       agcaatcctc ccacctcagg ctctcaagta gctgggacta caggcgctta ccaccatgtg
76081
       caggctaagt tttttatttt ttatttttt taagagatag gatctcgcta tgttacccag
76141
       gctggtcttg aactcctggt ttcaagcaat ctgcctgcct cagcctcctg agtagctggt
76201
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       actggctcag acaatgtttt tggaaaactg aattttttga aatcctttaa aaattggaat
76261
76321
       attgcatatg aaaattcaga tatccagcta cccctaaaaa caaaaacaaa aacaaagcag
76381
       accatttggt cacactaggc caccatttgc tcatagtaac aattacctag ggtgtgaaat
       ggcaccctca tgttgtccag ctttattctt tttgccactc tggaacagca gctgtgactc
76441
76501
       cttataaact gcatgggagt gagactcatc taccccatca tattcatacc acagtatcca
76561
       caggacaata cagatgtgct gttttagagg actgtactta atatcacctc ctgatgagat
76621
       cacttcattt aattttttg aagcaatttc attagaagaa aatgacttct aattataaaa
```

FIGURE 5-U

```
76681
       ggtatttatg caactgtatt atgactatta ataacatatt tctagaaggt tcctatgaac
76741
       atgagtgctt aactgcatgg ttttataaag aaataatttt attttgtatg tctgagattc
76801
       ttgtttattt atttctaccc acaatctatc actcaggggt gatgacaaat gtgaatcgtt
       ttctgttccc attgcctaag tgataacttt gccttttctt gggtatccta agaatgtatg
76861
76921
       atatcctqaa agcttqtcaq ttattaattq agcacaqttq taaatctqac qacaaaacat
76981
       ttgtttacaa cattgcaata ttcttcaacg acacgtatgt agcagtgctt ctttaaccac
77041
       acacatacta accaaattat taatatttac tgtgtggaca aaaacaagaa acacatctga
77101
       caacattttt ctttggagtg aactgagatt taataatgaa ttaaatatct ttaaaattca
       taaatatgac actcttgatt tgtaaaaaaac atgcaacagt aaagacaata aaacaaaaag
77161
77221
       caaaagtgac tgcactaata tagcacaagt gcagtttttt aaataatttg agaaaccaaa
77281
       gttttctcat aagttcctta gataactggt tcatatttca agtaccatca atgggcacac
77341
       acaataactg aaactgatca tttaatatct actgaaacat tgtgatcaat aaatgctatt
77401
       ttacttaatc ttagtttata agtataaact ggcttttgca gatttgtaac tttgtcctga
77461
       aataaattta cttaaggatg agaattttct aaatgtttaa aagtaaccca catattgaga
77521
       aagaactgct tttgttacca atagtaggtg atccaaaacc agtattctac agtttgcttt
       tactgaaaaa aagaggctaa aaaataatga tgtctccaga gtgaaatcat attgtttaca
77581
77641
       gctcagttat tatactacct ttcaaaaatg agtttattgc ctgtcacctg gaggaactgt
77701
       gacagaaata tttatattcc acctctcaca ttgaaaaaat ttgtaaaaag aaatcctagt
77761
       aaaacaaaat gttacaaaga tgacacgtgt gactctgttg gaaagaggaa aaagatgaaa
77821
       gaggtaaatg agagtaaagg gaaataaaaa caaattctta tattttcaat tgcataaagg
       tagttaaagc aagcagatgc catgcttata tggaaataga caataaaaaa taatttcaac
77881
77941
       ccacaatctt tagaaatgtg gaatgttaaa cacagaagaa aacaagcaca accaacctac
78001
       agtgctttgg aaatttgtta aattattagt actttatatg gttacctttt attttctta
78061
       aaggtattaa ctatgctgct actaaaatga gaggggtctg atgtgagatt gaatcatgca
78121
       gagttqcaqt qtcataqaat attaatcaqc taqccctaaa cctttcaqtt aqtqctcaca
78181
       gaatgatttt tctctgtgat tgaatttgtt tccatttatg gcttgtcatt ataggctacc
78241
       caccatgtca gtgtaggctc tggaaatcct gttacttcaa cttccaaagt cactggagaa
78301
       ccttccatga cagttacatt agacaggagc ctggagaaat taggtgcctg gtcagctagg
78361
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78421
       tgatagcccc tgctggtgcc tgattgaaac ctgaggcccg agaatgcatc agaggaagca
78481
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78541
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78601
       atgetetetg gatgtteage actgattetg tgtaaggeag tactetttte caegaateet
78661
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78721
       aatgtttctc tcttatcatt gcatgcatcc gcaaaggcaa caggtggtgg aagaacagat
78781
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78841
       ctgagggagg agctgacagg ctcttccacc tccatgtcag atggtgcaag aggggactca
78901
       gggcttcctg ggagaggagg caaggagatg tcatcaggtg agacacactc atattcttcc
78961
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       accttcaggt cttgtggtag tcgctcttcc cctgttccat tgatgcccaa aagatctgcc
79081
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       tttccagttt caattacagt aaaactcaac ttcagagaga taactcgaga caacctacaa
79141
79201
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79261
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79321
       aaagtgtgat agacattgtg aacagaagag agaaagccct agtttccatc tgtagtgaag
79381
       gggttggact agatcaacat ctttcaaacc atgatctggg gagtcttctc aaacagcaaa
79441
       gtcagcttag gtctggcttg tctacacaca catctataaa cacacagatg ctgaccatca
79501
       gagactccct tgttaggtga ttccttggac tctcccggaa taacctgtcc tttctctcaa
79561
       gaaaaccatt tcttttaaa ataaattgta gtgaaatata cataaaatgt accacttcaa
79621
       ccatgtttaa gtgtacggct cagtggcatt aagtgcattc acattgagtg taactatcac
79681
       tgccatccat ctccagaact ttttcatctt tccaattgaa attctgtatc cactaaacac
79741
       taaccccta atctttgtc ttcccccgac tcagcctctg gcaaccacca ttctattctc
79801
       ttgctctatg catttgaccc ctctatgtac ctcatataga qaaagcaatt cttcatgact
79861
       agttttattt tcttgaagtc ccttagttta ttcttgcatt gaaaaaatat ttattgagca
79921
       cctactgcta tacactagga accatgctag tattagaggc ataatttggt gaatacaagt
79981
       agatcagtct ctgcagttga ggagatgata tcctagtgga ggagScagat attaatggaa
80041
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80101
       ccacttgtct ctgctccaat ctgagtgtag tcctgctagg agtggtgagt agcagtactt
80161
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80401
       ttgccttgcc tttgagtttt tcattttagc ccgtagtcct gctgttgata tacattttgt
80461
       aagtgatttt taagaaaata agactgggtg cggtggctca cacctgtaat cccagcactt
```

FIGURE 5-V

```
80521
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80581
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80641
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80701
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80761
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80821
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80881
       gatcgtgcca ttgtacccca gcctgggcaa caagagtgaa acttcgtctc caaaaaaaaa
       80941
81001
       tactatccca cagagattat ctctcctcag agaaacatta acccaactta gcgaaagtgg
81061
       tttccttcag ccatttacta aaagtttaaa ttctgagtct aaaacccaga tgttcttaga
81121
       agttcccctc attaaaaaga atattaaatt actaattqcc cctcctctt ttgqctqtcq
81181
       tgccacaget tageteggte tetetgteea tetetteatg aaagtagaat gettatttte
81241
       ctccttatgg ggactttgat taaccaccta ttcagtctaa gaatctccac tacaacattt
81301
       tggcagcctc tatttgaaca ctttttctga aagagtactt tgagaatgtg tgccttactt
81361
       gtgttaagaa tatcttccta tatgtagcaa agatctgcct tcctgcagtt tccaccaatg
81421
       gatctgaatt ggcctcctgg agctacacaa aaagtccagc tqctctccaa ctttaataqc
81481
       tctttgactg tttggagaat tggtcctaca acctqtctaa qcctctttct ctqtaccaga
81541
       cacteteagg tettettttg ceteaactet eteteateat ettggteatt tetgggaggt
       cccactccta ctgcgccaca agatccttca tagaagagca gggacatttg ttgacttgtt
81601
81661
       ggccttccag gggcagacaa tgacaactcc ttaatgactt cttcaggtaa cctatgactc
81721
       tccacagaag aataatgttt tagaattgtc tgaaaactta caacaagctt aggagagaaa
81781
       cttgaataca agtccagacc catctcccaa ctcctcaatc cctgctgggg aggaatttat
81841
       ttcctaattg agggtttgga agaaggtact gagcatgctc agatctgtct ctatgaggcc
81901
       ctcacttttg gatttgcctt tcatgaaatg catgggttca ggttggctct aaggcatgaa
81961
       aatcccccgg aggtgaagtc tgtggtcgtc tagatgggca cccaagtgga ctgggtacat
82021
       atttaatcta tttaaatcag gcatgaagtt tagggaaacc cactagaaaa gtccaagcca
       tccagcttta actggttcct gactcctgta tcttactttc agctggtgcc aaacacatga
82081
82141
       aaggaatata aggctatcat tttttcactt ctaacaattc ctaaaataga aaaagtactt
82201
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82261
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82621
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82681
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82741
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82801
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82861
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83161
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83221
       gatctacccg ccttggcctc ccaaagtgct ggggttacag gcgtaagcta cagcacccag
83281
       ccagaaacat tattttaaaa ctcactgagc tatattttct agaactgtct agttttcaac
83341
       tatgaaaatg ctatccaaac atttacatat actaattatt tgttaatatt ttttcaccat
83401
       aaaaccatgt ttgttattac caaaaaaaaa atgtgtgtgt gttatttacc cagaaaagtt
83461
       taaataaatt tatggttttc agtacagaca gggcatattt acatcagtct aatgagttct
83521
       ggcaaaatag ctgggaaact ctgatctaat tcaccaaaac atagctcaac tctcaatctg
83581
       cttttcttat atcaaattga gaggctgatc tttgtctttt tgttgattcc tttttctttt
83641
       cccaccttct aaatatatga atggcctgca gtcttatctt taagttctct aattgtctct
83701
       atattccttg cccctcaaac atcttaccca cttacatatc tagtaaacaa ttagctttta
83761
       attaatacta aatctattag cttcaagtct tatctctgtc aggacttctg aactttcatt
       tctgctgatg ggcataatcc cttgcattta aatcattgcc ctgtaggcag aaaaaatgtc
83821
83881
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83941
       tcaaagtcca tagagcaggg aactacatat gtggtaaatt tgaaggaaca ctacaagatt
84001
       ttatcttcca aaatacctcc ataacagata gccttacttt agggtaaata agatttaatg
84061
       aaagtaagta ggaagaacac aaaggaagat attaagcata ggacttggtc tgtaaaacac
84121
       atttgtagag aaggccctta gcgggggctt tagacaaaaa ggggtaatgt ggtattttgg
84181
       ggcactttag gtggacaagg taaaagaaaa gggaacagag aggtggtgaa gaagaacact
84241
       aattttcttc ccaatttctt tcaaggcaag tgtttcagga acatcttcct gtacctgccg
84301
       ggtgatcagg attattgtgt gtgtgtgtgt tgagggtaga gggggagtgc agggaccctc
```

FIGURE 5-W

```
84361
       ctcacctagt ctgataagag cactccactg aattctttgg tgcaaaaaat atttccatgc
84421
       tattgcttat aagcagataa ataggaagag gggaaaagtt tgtcatggac atctacagta
84481
       tcattacaaa gcagcttatg tatacgcaat agttcctggg Rgctcccatt ttggtcttgY
84541
       gggaaaagtg tatggctaaa attcaggaga attggggtga ctgccagttc ttacactact
84601
       ttctqtaatt tttggaggac aatatattca atcccttttg gcctcagttt cctcaactgt
84661
       aaaatgatat ttgattaaat cccttctagc actaaaattc tataactcta aatgctggca
84721
       tcaaaagcca tcatcttcca ccaaatagtt gcacgacttt aggtgagtct gttaatactg
84781
       tgtgcttcca tttaacctta ggagttttca tatcttcagt gctcacattg ggaataaaac
84841
       accatcacta atctgttagc agtgctacgt gtgttgcatt tagtgaattg cctaattcca
84901
       cctgctgcat ttttgggtct gaaaaatgag aagtactttg ctatctccag gaaaaaaaat
       ccctgcattg aatatattct tatagtagtt cagtggaact attctttcca actcaaataa
84961
85021
       tttcctcagg aattctacca tcatttaagg gtatcagaat tgactgcaat aataccagga
85081
       caagetttte acttggtget teetatetge ceacatgggg ttgtggagaa teattacate
85141
       tgatctacat ataaataata cagacaataM gagggtaaat gtgattgagc tacttaaaag
85201
       tgaagattac tgccaccttt tcattttgct gtctacacca attgcaccag gacataacat
       gacgttaata acaattottg acagctgtaa ttgtagaccK tcacttacac ccaaaatgac
85261
85321
       tgatgctcca accttttagt ttgtattaga ataaaagtta tttttccatg aaggtaaatc
85381
       ttgctttttt ttaatttaaa ggaatctgtt tcttctaaca agaaaataaa agcaagaaaa
       actactttta ctaagtataa attatttttg tttgctttgg tagcaataac ttttgtttct
85441
85501
       gagttcttag taagtgtgtc tagttcacaa tgtaggaaat tgtgcagaac taaataaaat
85561
       aaatgatagg gtgttggagt tagtaactct tagaaacctt tttaagaaaa tgtggtgcat
85621
       ttaaggctat tctttattgt gtcgaccact cattctcaaa tgaagtgatt ttagtataat
85681
       agatgctact ggcatctagt gagcaaggcc aggaatactg ctaaactaca atgcgtagga
85741
       cagctcccca caacagagaa ttctctggcc aaaatgtcaa cagtgctgtg gttgagaaac
85801
       cctgatttag accaatcaga gtaacgtaaa accatttgat acaagagtag catccagcaa
85861
       aatgaccaaa gtttggcagc tctcctttgc ctcagagagg aatctgggtt taagtcgctc
85921
       aagaccctac cacaaaaaaa gacagtttgc ttaacactac ttgctgcctg ctggttgtat
85981
       aactgcacca ggccttgaca tagattaacc tgtggaaaag gacctataag aaagctgaaa
86041
       gaaccatact gacttcaagg aaagataaat ctttctccac aaaataactg ttacaaatgg
86101
       agagggtttt tgtttgtttt taactctcat gtcacaagaa gtgtatttta ttaatttgag
86161
       cacggttcag aataatgttg actttgattg ttccttcagc tcctcaggag agaaacactg
86221
       ggagcaggca acttggcaaa gcaaaaagtc aaaagctaat tatagtccag cagctgtgaa
86281
       tagagagtga gcaacttatg ctgaaaaacc atcttgatgt tgtgatttaa ataacacttt
86341
       caaaatcatg atacatttgc atttttgtga gtatctgtag tcgttacatg ctttatcagt
       aagtgcataa gtgttacaat aatttaaata tttctctaaa tactttagta tttatatttc
86401
86461
       agctggattc tatggtttga taaatgtgcc tggaaatatc atcttagagg tagagtctat
86521
       gggaacaaga tatgatctaa tttcacgtat taagctttgc taatgggttg tgtaaaacat
86581
       aaaaatcatg gcttggcaat atgataaaaa gggataagta aaatttgaag ttggattgga
86641
       tataaaaaga caatggaaaa ggcagctaga gatgggaaaa acaagtggtt tggggtgaca
86701
       tggcatttaa atggctgtcc caatgctact gtgaaatgtc atggtttcca gtactcgata
86761
       gtgagaagct cagaggaaac agcacaacag agagaagaag caccaataga ggagcaaaag
86821
       gaagcaaggg aggaggaaac tcacattgca tttacactgg gaaattctat ttggatagat
86881
       aagaaagctg caattcactt ttattttgca atggacaatg actttaacct caaagcaaaa
86941
       gtcctcaata gctgaggtta agtagttttc tttaccttat tcctttcttc attgaatatt
87001
       gtctgcttat tttttgctgg ttcctttagc aagtcaatgt aatcataatg gaagtcttcc
87061
       aaattcggat tcatctttaa aacatctccc tgctgtacaa agcaacagtt agtgagagca
87121
       tgagccagga aagttggaga acagtgccat acactaacta cttggaagaa aacatagacc
       acttqcaacc tttcaqcaaa tatattccac aaqaqactgg tgtactccca tgatgtgatt
87181
87241
       tataaaatta tooctoocag ctcacagttt coctcotgcc tcattcottt gatagagttc
87301
       attgccagta aaaattggtt gttgaaagac ccagcaggaa aaaagtaatc attataatag
87361
       gatgcttctg caggagcatt ctctagagaa aggaatcatt atgcatggca gtgtaaacca
87421
       ttaggagagt ctggggagca gcagtgaggt agaaatgatt aaagatctct aggggagaag
87481
       aaagtaggaa atccagagaa tctacacaag caaaatactg gggagactct tgaaaagagg
87541
       aataaaatat cactgagtat agtaaagaaa aacagcaatt gagaacacag gatgcKtcat
87601
       gtggttgaag atattttgtt ccctgcattt catggggctc agttttagtc atggaggtag
       tgggggtttg caaagtactg tggagtcagt gcaagagccg agaagacttt gtaaaggtgg
87661
87721
       aaagaaccac tggtatcaca catgatagaa cacaccagtt tagaatgatg attatactgc
87781
       aatggaagag tototattoo acctggaata aaatcottag atgagtotta aacaaacatg
87841
       catgctcatc aaaatgcata tgcaacactg gctcggagga ttcagggaga cccactactg
87901
       gggagattet gettteagte ceaactetaa accqaactgg tttgtgetge teaatqagte
87961
       actctgcttt ggtatgcagc tgatatctta ttccaaaata tcagctggtg tggaaagaat
88021
       gctagatttt gaattagatc taaattcaaa tttcagatct accactattg actattgggg
88081
       cccatgtaaa gcactcttac cctctttgga cttttccttt cacctctaca cagaaaacat
       ttgccttctt ttcgtctcaa cattatttgg aaatcactgg agataatgta tatgaacgtc
88141
```

FIGURE 5-X

```
88201
        ctttgtaagt ctcaaattgc tatacattag aaaggatttc tatcactatt taagccctga
 88261
        caggaattgc tgagcccatt ttctataact ttgaaaagag agccatagca tcaaccttta
 88321
        tatttaataa cataaaaaat agacatttgc tctcttcata caaacacctg taaagtgctg
 88381
        gtaagcattc tttgggaagc gtttgttgcg gctgtaactc ataaagataa tgctgatgcc
 88441
        tatttctctt gccaqaqaqa ccctttctca tttctacatc cacccaaatt aaacatcttc
 88501
        aagcaatgaa tgatagttct tctctgtacc aatccattgg gcatttacta caaatgccaa
 88561
        aactctttct ggagtacctg ctttagaaag caaagcaggc caggtgcggt ggctcacacc
 88621
        tgtaacccca gcattttgag aggccaaggc ggaaagatca cttgagccca ggagtttgag
 88681
        accagcttgg gcaacatagt gagacctcaa ctttacaaaa aaatcaaaac attagccgag
 88741
        tgtggtggtg catgcctgtg gtcccagcta cttgggaggc tgaggttgga ggattgcttg
 88801
        agcctgggaa gtcgaggctg ccgtgagcca tgataacacc actacactcc agcctgggca
 88861
        acagagcaac acactgtctc taaataaata aatcaataaa taaatacaag gcaaagcata
 88921
        gtgttaaata ttgtgtggga cactaaattt agcagcgcca gagggtttcc ttaagtataa
 88981
        tcaagtaggg agggttggga tggcaacagc agttatatgt gatgtaatta tatgtagtag
 89041
        ttatatgtgg gattatacta gtgttatagc ctgaatgttt atgctccccc aaagtttata
 89101
        tgttaaaatc cacatcctta aggcgatagt attaggagat gatgcctttg ggaagtgatt
 89161
        aggtcatgag ggtgaagccc tcatgaatag gattagtgcc cttagaaaag aggcctgaga
 89221
        gacacccctc attettttac catgaaaggt tagagtgagt agacagctac caggaagtcc
 89281
        tcactagaca ccaaatctgc cagcatcttg atcttgaact tccagcctcc agaactatga
89341
        gaaacaaatg totgtttttc ataaggcatc ttgtctatgg catttggcat agcagccagg
 89401
        atggactaag acaggtagga aggcacacaa gtggcatggg agatcaggga gggagtgata
 89461
        tagctaagga aggatttatg gaggaggcag catttgggtt tggctctgag agatggtaag
 89521
        atttcgaaaa acagagacag aaggtcgtgt ccttgaagta aaggtttaga agtgagaaat
 89581
        cccagggagc atagtagatc agtgggacac agacctacag tgaatgcaga agcacaatgg
 89641
        tttggaaagg tgaccagctt cagaacattg aaaggccttg aattggaact tgactKggta
 89701
        aggaagagtt tgtagtagag tgttgtgaat gtgaagatga cactagcaga actatttagg
 89761
        aagggtaatc tagctgggag tataattagg ggactcctga ctactgcaaa agagaatcca
89821
        agtgacaggt tgagcgtgag aaagagagaa tgcaatcctg actacactga gggtgtaagg
 89881
        aatggagaat gaggaagtgg gagaggctgt ggaaacagct ctttcaggaa gaatagccat
 89941
        caaggtaaaa gctggaaagg gatataactt gaagaaagta gattttatga agctgaccct
 90001
        cacttgaaga tgtgcaacgt aaacgggagg aatattgtag acaatgaaga gcaaagagtc
 90061
        ggaggaagca ctgattttcg gccttcgtat tggaagtcag aagcagcagc agctcctcgg
 90121
        tggtggggtg gagqtggqqa ggaaagaata aatgttgaaa aagataacat gagatatgtg
 90181
        gtttattatc attgtgaaac aatgatggga agcaaataac atacatatta gaaatattaa
 90241
        tcatttcata tattaaaaat ttcagttttc tcaaacctga ttgtagaatt tatgtgtggg
 90301
        taataataca aaagaaagaa aaagctatgc acgaagatgt tcattgtagt gttatttaaa
 90361
        atggtaaaat ggtaaaaaa aatctagatt tttaaccaaa ggataaagat aatttggttg
 90421
        ggcacccact gaattaaaag cctcacaaac tatttgaata gaagaggcac ataaatttat
 90481
        gacatggaaa ttcctacaga aaaaagaggc tgctagaaat aaacataatt ctgctctgaa
 90541
        ctgcaagacc accactaggc ctcaataaca attatcacaa caataatctt gagtatcttc
 90601
        acagtcaatc ctccgggcta ccctgggatc cactttgtag atcaggaaac aggctcaggg
 90661
        agattaaata atttacccaa ggtcacaaat ccaattattt agggagttgg tatttcaagg
 90721
        caactgtgct ttgctctaca gcctttgatc ttaatgacct tgctgttctc cccatcctca
 90781
        acaaccagtt ctttcagcca gctataaaaa cagcattaat caaaccagtt tttgacatga
 90841
        cattgacaaa gaaacatatg tatttcactt taactggttt tgcttagaca taaacatatt
 90901
        ctccatattt gttaccatca aatttgtatt ctacgaaaag tgatcatgat tagtttacta
 90961
        tttccatgag gaaaagtgtt gaatgaatat aatacctgaa gattacttgt attttctctg
        gtgccacaat ttggagagga aaaaaaaacc ctggcatcta ttatttatga acaaaaccat
 91021
 91081
        aggetaetta atacaaagtt taetggeaga qtettaatgg gacacatttt ttaggatatg
 91141
        atccatgaaa atgtaaacca gacaccttaa ttgtgtttag ccttcattac cagcaatatt
        tttctctgca gtgatgggaa agaaatagaa ttaattatca caaacaccca gataattatg
 91201
 91261
        tttgaaagct gtaaaacaaa tgtgcacatt atgtaccctg agaaattctg ttaaaatgtc
 91321
        tttgcaccag aagacatttg attaacacat ttttatttat tttgcttgaa aatacatatt
 91381
        ctaggaagaa gaaattacct tcagtttttc ttcgagctct gtgagggact cacataattc
 91441
        agtcacagat tcaagaacct ctttgtgttt tgtcactatt ttctcaatat atttctgtcc
 91501
        ttcttccaaa cctggggagg agaaggatga aactagtttt aaaggtcaaa tttttagcaa
 91561
        gaagaaaagt ccaggtataa attcatctcc ctgtccagtg taagggctga taaattgtaa
 91621
        gttcttaata aatatttgct gaagagataa ataaatgaat aaagacaagt ttctaaaagc
 91681
        tagatattct aggaaaatga ttacatttgc tgtaccacgc cacttgcatg taacctaaat
 91741
        aatgttgcta catgaataqt cttaaaqctc aattctcctt aqtttttcct gttcaaaaca
 91801
        ttcagtggtt cctctctgct tagagaagaa taaattcctc aggatggcat tcaagtccct
 91861
        tocataacat ggottcaatc tgcctctccc aaatgtatgt cactctagtt ctctcctgta
 91921
        ttttatctcc agccaaatgg aaccagcaac tcctccctga agatccacac agcagctgag
 91981
        tattccttcc tctaccagga ctactgtccc tccactctca atttctgctg tcaaaatata
```

FIGURE 5-Y

```
92041
       acctactctt taaggtccac ctgaaatgcc aacatttctg tgaagatatt cttaatcttt
92101
       tccaactggg tttctctcta tatattgtaa taaaaatagc taccatgtag cacatgctta
92161
       ttatttgcct gtgcctaagc actgtataac cattgctcaa tgtaatcctt ggatagatWc
92221
       tactactatc cacattttac aaatgaggaa tgtgatgctc aaaagatctt cttgcctcgg
92281
       catagtgtct cgcgcctgta atccgagcac tttgggagac cgaggtgggc agatcacttg
92341
       aggtcaggag ttcgagacca gcctgaccaa catagtgaaa ccccatctct actaaaaata
92401
       caaaaattaa cctggtgtgg tggcacatgc ctgtgatctc agctactcgg gaggctgagg
92461
       caggagaatc acttgaaccc gggaggtgga ggtttcagtg aaccgagatc atgccactgc
92521
       92581
       ctttaggtga cccagacaat aaatggggga acaaggattt gaacccagaa ctatctgact
92641
       ctacacccta ggccaagatt gtatcacaca ttgttatggg ctgaactatg tcccccatc
92701
       ctgccaagtt catatgttga agtcccaatt cccagtacgt cagaatgtaa ctgtatttgg
92761
       aaatgagatc tttaaagagg tggttaaatt aaaatgaggc cattgggatg gggcgctaat
92821
       ccaatgtgac tggtgccctt acaagaagag ggagagacac caggggcatg tgtgtgcaga
92881
       gggatgacca cgtgaagagg cagcaaggga tcagccatct gcaagccaag cagagtggcc
       tgagatgaaa tcaaccctgc tggcatcttc atcttggact tccagacctc agaagtgtga
92941
93001
       gaaaagaagt ttctqttgaa gccacccagt cagtggtatt ttgttacggc agccctagca
93061
       aacaagcaca aacattttat gtccttctca ctccatttac cataccatga cttcaaggac
93121
       tagactgtgg tctcttgaat ggaggaacta ggtcttaatt gtctttataa cagccacagc
93181
       tcttagtaga taacaggtat gcacaaattt gtttgagata attttttgca tgaaaattct
93241
       gagttcagta atgcttgagt agcttgcaag agttgataca atcttaaagt gcctcccttg
93301
       atgcaaattt taaaaaatat atagcttccc taccaaacag acggagactc atgtcattca
93361
       tttactcatt cagtgattca tttatttatc aaatatttgt taagcagttg gtatgtgcca
93421
       ttagacagtg aactaacaag caaaatcgct cctcaaatac agcttacact ctggtaagga
93481
       aagtcaggca acagacaaat acctatataa aatgtcagtt ggtgataagt gccaggaata
93541
       taaacaaagc cagatgcagg atcttgcagg acgggaaggg aatttaactt tttagggtct
93601
       ttqtcaqcac ttctcatgct ctgagattga ataggcactg atccaggcac aaatacagtg
93661
       aaaaaaatat actttcctca agtttatggg tagtagagaa gaccaatagg tatttatact
93721
       acaacgtaaa aagttcaatc gtggaggaaa catatatcag gctatgggag cagagtgtct
93781
       ccaaaatatt tagtgcactc acacggtaac tccagcaaga agatgtcacc ttagtttcca
93841
       ttaatttttc aatccatatt ttattatttt tatgtttcta tccttttctt ctggaatatt
93901
       atgaataatt cattctcaac aatttaagta gtatactaca aaatttatgg ctctccatgg
93961
       ataqtqtttc atqttataaq aqaaaatacc tqqcaqcaqc catqqqcaqq caaattaaqc
94021
       attittgtacc aactgttgtg tettettet gggetgeatt tgeetggtea etgggaatta
94081
       ctctgggtct cacaggaccg ataccaggga attcatggaa cttattcctc agaaccctca
94141
       agaactatca tcctccatgg acttcttaaa tggggggcct cttttaggag gaaggatctc
94201
       tcaggctgac atgacattat ctttcctagt catggaagag aggaaagcag aacttgtaaa
94261
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94321
       caggictitic tcaaatatgi gagccaaaag cctcatagaa aggagaggac tggagactic
94381
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94441
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94501
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94561
       gcttacacaa agtaggtaaa aatctgcagg cttcatctgc tgtcagaaat tcctcctct
94621
       gttccctgtt tgctttccct ggctgtgggc tcttaccttg aacattttcc ctgaatacac
94681
       tggtgtgctg aggaccctga ggacttgcca cactcttgct gtctactgga ttaggctcag
94741
       tatagatttq ttcaatggcc aatcactgga tatcttaaaa gagatctcac catataagtq
94801
       ctgagcaagg tcagtggcct cctgaatcct ttcttcttgc tgcggcactg agggtgcaat
       aaacttatta aactgctggt ggagaatttt cacagcttcc tttgtcttgc actctgtgga
94861
94921
       atattttcca actcttacaa ctgtggcact tgcatcttcg taccaaaaat gacactaaat
94981
       ttaaatggga taaagcacag atgaaagaaa taccatcctt ctaaagttct taattttgac
       cagtgaagta tcaaatttta attccctcaa cttaatgttc acattggctt gaactttcta
95041
95101
       agtcataata aagaaaatat taaaacatga tcgtattcta cagcacttaa atgttagcag
95161
       cagaaataaa tacaaatgtg aaaatatgta taaataaaac tataagaaag taaaaatatg
95221
       aaaatatatt tgattctcct accttcttag gtttgcctaa aatataattc ctaagaggaa
95281
       tgttgcagac ttataagaac aggcaggata aaaagcatct ggcactaaaa agaatccaaa
95341
       tacatgctaa atggcaagaa aaaagccaaa tgttcacaat ccagcataaa gaattgatat
95401
       cattaatcat acactgctaa agtattgcct gatgaatact ctaataaata aattatcttt
95461
       gaagaataag atttagttta tgaatgggaa aatatcatct aacaaatagc atttcacctt
95521
       tgcttagtag aaaatggtta tagtttccaa acacagtgga gaatgagaca gtttctcatt
95581
       aaaaataact qtqqctqqqc qtqqtgqctc acqcctgtaa tcccaqcact ttqqqaqqcc
95641
       gaggcaggcg gatcacgagg tcaggagatc gagaccatcc tggctaacac ggtgaaaccc
95701
       catctctact aaaagtacaa aaaagtagcc gggcgtggtg gtgggcgcct gtagtcccag
95761
       ctactcggga ggctgaggca ggagaatggt gtgaacccgg gaggcagagc ttgcagtgag
95821
       tcgagatcac gtcactgcac tccagcctgg gaaacagagc gacactccat ctcaaaaata
```

FIGURE 5-Z

95881	aataaataaa	taaataactg	tgatggaagg	aatgtctgac	tcaggcctga	agcacttatg
95941	cagggtgaga	aatagaaaca	catgactctg	ttagaagttg	gttttaaata	agtgccacaa
96001	agggaccaca	aacttataca	tcatatgtag	aagactgatc	attttgattc	tccttaatct
96061	ggtgttaaat	ctaaaaactc	agctgcatta	gtggtaaaga	cgttctgtat	ctcaaacaat
96121	aatgggcaac	aaagaacact	caagaacttc	aagtgcagaa	tttcttcaat	acaaagtgtt
96181	caaacaataa	ctttaacttg	ccaaatttca	tatattttat	gtatactcta	ccatttatct
96241	tcttgacagt	aataaaagaa	aacaccaata	acaactttt	gtagctgaaa	aatcacagta
96301	tcacttttta	aaataaatat	tttcaagttc	tgtgaaataa	ataaaccatt	ctgagcattt
96361	taaacagata	tccagcagtg	aacataattt	catgataatt	aaacatcttc	atctgatgag
96421	gttatggaga	aacaggaact	ctcacacatt	gccagtaaat	tagtaaagac	ttttctcaag
96481	agaaattgac	caataaaatc	aaagacctta	taatattcat	ccccttaggt	ccagcaattc
96541	tatttcagag	aattatccta	aggaaaaaaa	atcatgaaaa	ggagcatgWt	acatgaatat
96601	aatgagaata	acagctaatg	caacattgct	ttaaagttgc	aaaatgattt	ttgaaaacaa
96661	cattacaaca	tggataccac	tgcaaaaaga	gaatacctct		

FIGURE 6-A

Ensembl GP6 transcript ENST00000310373

ATGTCTCCATCCCGACCGCCCTCTTCTGTCTTGGGCTGTGTCTGGGGCGTGTGCCAGCG CAGAGTGGACCGCTCCCAAGCCCTCCAGGCTCTGCCCAGCTCCCTGGTGCCCCTG GAGAAGCCAGTGACCTCCGGTGCCAGGGACCTCCGGGCGTGGACCTGTACCGCCTGGAG AAGCTGAGTTCCAGCAGGTACCAGGATCAGGCAGTCCTCTTCATCCCGGCCATGAAGAGA AGTCTGGCTGGACGCTACCGCTGCTCCTACCAGAACGGAAGCCTCTGGTCCCTGCCCAGC GACCAGCTGGAGCTCGTTGCCACGGGAGTTTTTGCCAAACCCTCGCTCTCAGCCCAGCCC GGCCCGGCGTGTCGTCAGGAGGGGACGTAACCCTACAGTGTCAGACTCGGTATGGCTTT GACCAATTTGCTCTGTACAAGGAAGGGGACCCTGCGCCCTACAAGAATCCCGAGAGATGG TACAGGGCTAGTTTTCCCATCATCACGGTGACCGCCCCCCACAGCGGAACCTACCGATGC TACAGCTTCTCCAGCAGGGACCCATACCTGTGGTCAGCCCCCAGCGACCCCCTGGAGCTT GTGGTCACAGGAACCTCTGTGACCCCCAGCCGGTTACCAACAGAACCACCTTCCCCGGTA GCAGAATTCTCAGAAGCCACCGCTGAACTGACCGTCTCATTCACAAACGAAGTCTTCACA ACTGAGACTTCTAGGAGTATCACCGCCAGTCCAAAGGAGTCAGACTCTCCAGCTGGTGAG TCCTGCCGCCAGTACTACACCAAGGGCAACCTGGTCCGGATATGCCTCGGGGCTGTGAT CCTAATAATCCTGGCGGGTTTCTGGCAGAGGACTGGCACAGCCGGAGGAAGCGCCTGCG GCACAGGGGCAGGGCTGTGCAGAGGCCGCTTCCGCCCCTCCCGCCCCTCCCGCTGACCCG GAAATCAAACGGGGGTCAGGATGGAGGCCGACAGGATGTTCACAGCCGCGGGTTATGTTC CTCAAAGACTGCGTGTGTGGAGCGTGGAAGCAGGGGCAGAGGCTACAGCTGTGGAAA CCTCTTTCTTCAACCTCTCTAATATGGGCTCCAGACGGATCTCTAAGGTTCCCAGCTCTC AGGGTTGACTCTGTTCCATCCTCTGTGCAAAATCCTCCCGTGCTTCCCTTTGGCCCTCTG TGCTCTTGTCTGGTTTTCCCCAGAAACTCTCACCCTCACTCCACTCCCACTGCGGTCTA TTCCTTAGTGTAAAACTAGCACGTTGCCCGCTTCCCTTCACATTAGAAAACAAGATCAGC AGGTGTGGTGGTGCATCCCTATACTCCCAGCAACTCAGGGGGGCTGAGGTGGGAGAATGGC TTGAGCCTGGGAGGCAGAGGTTGCAGTGAGCTGAGATCACACCACTGCACTCTAGCTCGG GTGACGAAGCCTGACTTTGTCTCAAAAAATACAGGGATGAATATGTCAATTACCCTGATT

FIGURE 6-B

Ensembl - Q9HCN7 transcript sequence ENST00000333884

ATGTCTCCATCCCGACCGCCCTCTTCTGTCTTGGGCTGTGTCTGGGGCGTGTGCCAGCG CAGAGTGGACCGCTCCCAAGCCCTCCAGGCTCTGCCCAGCTCCCTGGTGCCCCTG GAGAAGCCAGTGACCTCCGGTGCCAGGGACCTCCGGGCGTGGACCTGTACCGCCTGGAG AAGCTGAGTTCCAGCAGGTACCAGGATCAGGCAGTCCTCTTCATCCCGGCCATGAAGAGA AGTCTGGCTGGACGCTACCGCTGCTCCTACCAGAACGGAAGCCTCTGGTCCCTGCCCAGC GACCAGCTGGAGCTCGTTGCCACGGGAGTTTTTGCCAAACCCTCGCTCTCAGCCCAGCCC GGCCCGGCGTGTCGTCAGGAGGGGACGTAACCCTACAGTGTCAGACTCGGTATGGCTTT GACCAATTTGCTCTGTACAAGGAAGGGGACCCTGCGCCCTACAAGAATCCCGAGAGATGG TACAGGGCTAGTTTTCCCATCATCACGGTGACCGCCCCCACAGCGGAACCTACCGATGC TACAGCTTCTCCAGCAGGGACCCATACCTGTGGTCAGCCCCCAGCGACCCCTGGAGCTT GTGGTCACAGAATTCTCAGAAGCCACCGCTGAACTGACCGTCTCATTCACAAACGAAGTC TTCACAACTGAGACTTCTAGGAGTATCACCGCCAGTCCAAAGGAGTCAGACTCTCCAGCT GGTCCTGCCCGCCAGTACTACACCAAGGGCAACCTGGTCCGGATATGCCTCGGGGCTGTG ATCCTAATAATCCTGGCGGGGTTTCTGGCAGAGGACTGGCACAGCCGGAGGAAGCGCCTG CGGCACAGGGCCAGGCCTGCCAGAGGCCGCTTCCGCCCCTCCCGCTGACC CGGAAATCAAACGGGGGTCAGGATGGAGGCCGACAGGATGTTCACAGCCGCGGGTTATGT TCATGA

FIGURE 6-C

NCBI - GP6 transcript sequence NM 016363

mRNA seq

ACAGAGCTCAGGACAGGGCTGAGGAACCATGTCTCCATCCCCGACCGCCCTCTTCTGTCTTGGGCTGTGT TGCCCCTGGAGAAGCCAGTGACCCTCCGGTGCCAGGGACCTCCGGGCGTGGACCTGTACCGCCTGGAGAA CGCTACCGCTGCTCCTACCAGAACGGAACCTCTGGTCCCTGCCCAGCGACCAGCTGGAGCTCGTTGCCA ACCGATGCTACAGCTTCTCCAGCAGGGACCCATACCTGTGGTCGGCCCCCAGCGACCCCCTGGAGCTTGT GGTCACAGGAACCTCTGTGACCCCCAGCCGGTTACCAACAGAACCACCTTCCTCGGTAGCAGAATTCTCA GAAGCCACCGCTGAACTGACCGTCTCATTCACAAACAAGTCTTCACAACTGAGACTTCTAGGAGTATCA CCACCAGTCCAAAGGAGTCAGACTCTCCAGCTGGTCCTGCCCGCCAGTACTACACCAAGGGCAACCTGGT CCGGATATGCCTCGGGGCTGTGATCCTAATAATCCTGGCGGGGTTTCTGGCAGAGGACTGGCACAGCCGG AGGAAGCGCCTGCGGCACAGGGGCAGGGCTGTGCAGAGGCCGCTTCCGCCCCTCCCGCCCAGA $\tt CCCGGAAATCACACGGGGGTCAGGATGGAGGCCGACAGGATGTTCACAGCCGCGGGTTATGTTCATGACC$ GCTGAACCCCAGGCACGGTCGTATCCAAGGGAGGGATCATGGCATGGGAGGCGACTCAAAGACTGGCGTG TGTGGAGCGTGGAAGCAGGAGGCCAGAGGCTACAGCTGTGGAAACGAGGCCATGCTGCCTCCTCGTG TGGGATGGAAGGAATCTGTGGAGACCCCATCCTCCTCCCTGCACACTGTGGATGACATGGTACCCTGGCT GGACCACATACTGGCCTCTTTCTTCAACCTCTCTAATATGGGCTCCAGACGGATCTCTAAGGTTCCCAGC TCTCAGGGTTGACTCTGTTCCATCCTCTGTGCAAAATCCTCCTGTGCTTCCCTTTTGGCCCTCTGTGCTCT TGTCTGGTTTTCCCCAGAAACTCTCACCCTCACTCCATCTCCACTGCGGTCTAACAAATCTCCTTTCGT CTCTCAGAACGGGTCTTGCAGGCAGTTTGGGTATGTCATTTCCTTAGTGTAAAACTAGCACGTTG CCCGCTTCCCTTCACATTAGAAAACAAGATCAGCCTGTGCAACATGGTGAAACCTCATCTCTACCAACAA AACAAAAAACACAAAAATTAGCCAGGTGTGGTGGTGCATCCCTATACTCCCAGCAACTCGGGGGGCTGA GGTGGGAGAATGGCTTGAGCCTGGGAGGCAGAGGTTGCAGTGAGCTGAGATCACACCACTGCACTCTAGC TCGGGTGACGAAGCCTGACCTTGTCTCAAAAAATACAGGGATGAATATGTCAATTACCCTGATTTGATCA TAGCACGTTGTATACATGTACTGCAATATTGCTGTCCACCCCATAAATATGTACAATTATGTATACATTT TTAAAATCATAAAAATAAGATAATGCACCGTCTCCACCCCTCTCATATTTACTTTCTGAAGGAAATGTTA GGTCTTCTCAAGGTAAAGTTCTATATTTATTATAGCGTTTAGGCATTTCTTGACCATCTAATGAGTGTAA AACTGTACCACTGGGCCAAGTGCAGTGGATCATGTCTGTAATCCTAGCACTGTGGGAGGCCAAGGCAGGA GGATCGCTTGAGCCCAGGAGTTCAAGACCAGCCTGGGCAACATAGTGAGACCCCATCTCTACTTAAAATA AAGAAGTAAAAATTGTTTTAAAA

FIGURE 7-A

NM 002290 [gi:9845494] Homo sapiens laminin, alpha 4 (LAMA4), mRNA

gggagaggaggtggcctagcgctggcggggctcaccccaatccgtctgccttttgatgccgtactctgctggttgcg cagccacctcgggatactgcacacggagaggggaaaataagcgaggcaccgccgcaccacgcgggagacctacgg agacccacagcgcccgagccctggaagagcactactggatgtcagcggagaaatggctttgagctcagcctggcgct gacattgaagggagctcagcggttggcaggcaagacccgcctgagacgagcgaaccccgcgtggctctgggacgcct gccgcctgcggccgagaaatgcaatgctgqattctttcacaccctgtcgggagaatgtgtgccctgcgactgtaatg gcaattccaacgagtgtttggacggctcaggatactgtgtgcactgccagcggaacacaacaggagagcactgtgaa aagtgtetggatggttatateggagattecateaggggageaceceaattetgeeageegtgeeeetgteeeetgee ccacttggccaattttgcagaatcctgctataggaaaaatggagctgttcggtgcattttgtaacgaaaattatgctg gacctaactgtgaaagatgtgctcccggttactatggaaaccccttactcattggaagcacctgtaagaaatgtgac tgcagtggaaattcagatcccaacctgatctttgaagattgtgatgaagtcactggccagtgtaggaattgcttacg caacaccaccggattcaagtgtgaacgttgcgctcctggctactatggggacgccaggatagccaagaactgtgcag tgtgcaactgcggggggggcccatgtgacagtgtaaccggagaatgcttggaagaaggttttgaaccccctacaggc tgtgataagtgcgtctgggacctgactgatgacctgcggttagcagcgctctccatcgaggaaggcaaatccggggt aattgtcagaaagagaaaaccaatacgccctaagaaagatacaaatcaacaatgctgagaacacgatgaaaagcctt ctgtctgacgtagaggaattagttgaaaaggaaaatcaagcctccagaaaaggacaacttgttcagaaggaaagcat ggacaccattaaccacgcaagtcagctggtagagcaagcccatgatatgagggataaaatccaagagatcaacaaca agatgctctattatggggaagagcatgaacttagccccaaggaaatctctgagaagctggtgttggcccagaagatg cttgaagagattagaagccgtcaaccatttttcacccaacgggagctcgtggatgaggaggcagatgaggcttacga actactgagccaggctgagagctggcagcggctgcacaatgagacccgcactctgtttcctgtcgtcctggagcagc tggatgactacaatgctaagttgtcagatctccaggaagcacttgaccaggcccttaaccatgtcagggatgccgaa gacatgaacagggccacagccaggcagcqggaccatgagaaacaacaggaaagagtgagggaacaaatggaagt ggtgaacatgtctctgagcacatctgcggactctctgacaacacctcgtctaactctttcagaacttgatgatataa taaagaatqogtcaqqqatttatqoagaaataqatqqaqocaaaaqtgaactacaaqtaaaactatotaacotaaqt aacctcagccatgatttagtccaagaagctattgaccatgcacaggaccttcaacaagaagctaatgaattgagcag gaagttgcacagttcagatatgaacgggctggtacagaaggctttggatgcatcaaatgtctatgaaaatattgtta attatgttagtgaagccaatgaaacagcagaatttgctttgaacaccactgaccgaatttatgatgcggtgagtggg aaaccagactcagtgatqccqttaagcaactacaaqcaqcagagagagqgatqcccaqcaqcqcctggqgcagtct agactgatcaccgaggaagccaacaggacgacgatggaggtgcagcaggccactgcccccatggccaacaatctaac caactggtcacagaatcttcaacattttgactcttctgcttacaacactgcagtgaactctgctagggatgcagtaa tctgccagcatccagaggatccgagagctcattgctcagaccagaagtgttgccagcaagatccaagtctccatgat gtttgatggccagtcagctgtggaagtgcactcgagaaccagtatggatgacttaaaggccttcacgtctctgagcc tgtacatgaaaccccctgtgaagcggccggaactgaccgagactgcagatcagtttatcctgtacctcggaagcaaa aacgccaaaaaagagtatatgggtcttgcaatcaaaaatgataatctggtatacgtctataatttgggaactaaaga tgtggagattcccctggactccaagcccgtcagttcctggcctqcttacttcagcattgtcaagattgaaaqggtgq gaaaacatggaaaqgtqtttttaacaqtcccqaqtctaaqtaqcacaqcaqaqqaaaaqttcattaaaaaqqqqqaa ttttcgggagatgactctctgctggacctggaccctgaggacacagtgttttatgttggtggagtgccttccaactt caagctccctaccagcttaaacctgcctggctttgttggctgcctggaactggccactttgaataatgatgtgatca gcttgtacaactttaagcacatctataatatggacccctccacatcagtgcccatgtgcccgagataagctggccttc atttggtcaggtgactcgctttgacatagaagttcgaacaccagctgacaacggccttattctcctgatggtcaatg $\tt gaagtatgtttttcagactggaaatgcgcaatggttacctacatgtgttctatgattttggattcagcagtggccgt$ $\tt gtgcatcttgaagatacgttaaagaaagctcaaattaatgatgcaaaataccatgagatctcaatcatttaccacaa$ tgataagaaaatgatcttggtagttgacagaaggcatgtcaagagcatggataatgaaaagatgaaaatacctttta cagatatatacattggaggagctcctccagaaatcttacaatccagggccctcagagcacaccttcccctagatatc agttggttatggatgcccagaagactcacttatatctcgcagagcatatttcaatggacagagcttcattgcttcaa ttcagaaaatatctttctttgatggctttgaaggaggttttaatttccgaacattacaaccaaatgggttactattc tattatgcttcagggtcagacgtgttctccatctcactggataatggtactgtcatcatggatgtaaagggaatcaa agttcagtcagtagataagcagtacaatgatgggctgtcccacttcgtcattagctctgtctcacccacaagatatg

FIGURE 7-B

aagaagttttacttcggtggctcaccaatcagtgctcagtatgctaatttcactggctgcataagtaatgcctactt taccagggtggatagagatgtggaggttgaagatttccaacggtatactgaaaaggtccacacttctctttatgagt gtcccattgagtcttcaccattgtttctcctccataaaaaaggaaaaaatttatccaagcctaaagcaagtcagaat aaaaagggagggaaaagtaaagatgcaccttcatgggatcctgttgctctgaaactcccagagcggaatactccaag aaactctcattgccacctttccaacagccctagagcaatagagcacgcctatcaatatggaggaacagccaacagcc gccaagagtttgaacacttaaaaggagattttggtgccaaatctcagttttccattcgtctgagaactcgttcctcc catggcatgatcttctatgtctcagatcaagaagagaatgacttcatgactctattttttggcccatggccgcttggt ttacatgtttaatgttggtcacaaaaactgaagattagaagccaggagaaatacaatgatggcctgtggcatgatg tgatatttattcgagaaaggagcagtggccgactggtaattgatggtctccgagtcctagaagaaagtcttcctcct actgaagctacctggaaaatcaagggtcccatttatttgggaggtgtggctcctggaaaggctgtgaaaaatgttca qattaactccatctacaqttttaqtqqctqtctcaqcaatctccaqctcaatqqqqcctccatcacctctqcttctc gttctagatgaatctttcaatattqqattqaagtttgaaattgcatttgaagtccqtcccaqaaqcaqttccqqaac cctggtccacggccacagtgtcaatggggagtacctaaatgttcacatgaaaaatggacaggtcatagtgaaagtca ataatqqcatcaqaqattttttccacctcaqtaacacccaaqcaqaqtctctqtqatqqcaqatqqcacaqaattaca qttattaqaqattctaatqtqqttcaqttqqatqtqqactctqaaqtqaaccatqtqqttqqaccctqaatccaaa accaattgatcacagggagcctgtgtttgttggaggtgttccagaatctctactgacaccacgcttggcccccagca aacccttcacaggctgcatacgccactttgtgattgatggacacccagtgagcttcagtaaagcagccctggtcagc ggcgccgtaagcatcaactcctgtccagcagcctgacatgacagagcacagctgcccaaatacaaagttctttagag qacttaaacqaatcatcaqqqaccqqatatttcttatttctcatttqqattcttaaccttqaatccaaaqtqtctqc aatggacaacaattgaaqqaqqcaaacttacttgtattgaqaqcacacqcaattcctactgqtqaaattactqtt tctgtttctaataaaatagaagggattccaaataaacacttgcacacattttttgaagtqcqqctaqattctcagatt gaagaatattttaggtttatagctgaagttatcaaggtttaataaagtaaatttctaaca

FIGURE 8

NM_001819 [gi:4502806] Homo sapiens chromogranin B (secretogranin 1) (CHGB), mRNA

ccaqqaqqcacqctqqttttccqqqqccqctccatcqcqccttcctcctqcqccttctccqqtccaqccqcca tetteettteegeacaggggeegeegagegggeeatgeageeaacgetgetteteageeteetgggageegtgggg ctggcggctgtcaattccatgccagtggataacaggaaccacaatgaaggaatggtgactcgctgcatcattgaggt cctctcaaatgccttgtcgaagtccagcgctccacccatcacccctgagtgccgccaagtcctgaagacgagtagaa aagacgtcaaagacaaagagacaactgaaaatgaaaacacaaagtttgaagtaagattgttaagagacccagctgat gcctcggaagcccacgagtcctccagcaggggagaggcaggagccccagggggaggaggacatccaaggcccaacaa cctccgacagccaagtctctgaagaagtgaagacacgccattctgagaagagccagagaggaggatgaggaggaggag gagggagagaactatcaaaaaggggagcgaggggaagatagcagtgaagagaaacaccttgaagagccaggagagac acaaaacgcttttctcaatgaaagaaagcaggcttcagctataaaaaaagaggagttagtggccagatcggaaacac caggagaatcacccccaggagtctaaaggccaaccccgaagccaggaagaatctgaggaaggtgaggaagatgccac ggagtetteeetetgaggaaaagggacacccccaggaggaatetgaggagtcaaacqtcagcatggccagtttaggg gaaaagagggaccaccattcaacccactacagggcttcagaggaagaacctgaatatggagaagaaataaagggtta tccaggcgtccaggcccctgaggacctggagtgggagcgctataggggcagagggaagtgaagaatacagggctccaa gacctcagagtgaggagattgggatgaggaggacaagagaaactaccccagcttagagcttgataagatggcacat ggatatggtgaagaaagtgaggaagagggggccttgagccgggaaagggacgccatcacagaggcaggggagggga accagatggacaaggcaaggaggcatccacaaggtgcgtggaaagagctggacagaaattatctcaactacggtgag gaaggagccccagggaagtggcagcagcagggagacctgcaggacactaaagaaaacagggaggaagctaggtttca agataaacaatatagctcccatcacacagctgaaaagaggaagagattaggggaactgttcaacccatactacgacc gagctgaccttgaacgagaagaatttcttcccagaatacaactatgactggtgggagaaaaagcccttctctgagga tgtgaactgggggtatgagaagagaaacctcgccagggtccccaagctggacctgaaaaqgcaatatgacagggtgg cccaactggaccagctccttcactacaggaagaagtcagctgagtttccagacttctatgattctgaggagccggtg agcacccaccaqqaqqcaqaaaatqaaaaqqacaqqqctqaccaqacaqtcctqacaqaqqacqaqaaaaaaqaact cgaaaacttqqctqcaatqqatttqqaactacaqaaqataqctqaqaaattcaqccaaaqqqqctqactqtcattqq agcggtgggcactgttaagaagcagccatcacatgatctgtttttcaccacttcactgaaagacaccatttatatac ccaaqqqcaqaaaqtaqaacttactattcattaaatqtttqacacaattqqaattqtctttaatttctqtcaqaatq ctattgaaaatqtqaattqcatqacttqtaqcatattcttttctqcaaaataqacatattaacatqcttatqacaat qactqtqctactqtctttqqaaaaatqtttqtctcaqttqqaaataataaaaqattcacctqaqacc

FIGURE 9

XM_294692 [gi29746497] Homo sapiens hypothetical LOC338749 (LOC338749),
mRNA

ttcagacctgtagatgggctcttcttggacattctggagtccctgggggaaagggaagtctgaagctcagttggccacctctgcataacaaataccgagagcactgcaagtggagcttggacaaggtctggaaaatcagccttcttctggatgcctccagcctttgctatcatctgcctaggaggttggaagttactcaagcggctcaaggaaaagtccctatttctgttgcagttgatttggagttatgtgtagcccatcagaagtaagcagaaaactttgtgccgttttctatcctggaaataacacccccgccccttggccccgctgcattatcagccactcctcttcactcctttctatggctccagaagtgaagagctctgaaatgcctaaattgccagatgggaacatctttactgcttggagaaagccacacaggagttacctgacctgccttggatggtgacatgatgagaaataaacctttgttgggttagactgct

FIGURE 10-A

Ensembl- GP6 protein sequence ENSP00000308782

rs1671152 (G/T = K = T323K)

MSPSPTALFCLGLCLGRVPAQSGPLPKPSLQALPSSLVPLEKPVTLRCQGPPGVDLYRLE KLSSSRYQDQAVLFIPAMKRSLAGRYRCSYQNGSLWSLPSDQLELVATGVFAKPSLSAQP GPAVSSGGDVTLQCQTRYGFDQFALYKEGDPAPYKNPERWYRASFPIITVTAAHSGTYRC YSFSSRDPYLWSAPSDPLELVVTGTSVTPSRLPTEPPSPVAEFSEATAELTVSFTNEVFT TETSRSITASPKESDSPAGESCPPVLHQGQPGPDMPRGCDPNNPGGVSGRGLAQPEEAPA AQGQGCAEAASAPPAPPADPEIKRGSGWRFTGCSQPRVMFMTAEPQARSYPREGSWHGRR LKDWRVWSVEAGGQRLQLWKRGHAASSWCSIREPFGQCLSVCLPLCLRAPSIWDGRNLWR PHPPPCTLWMTWYPGWTTYWPLSSTSLIWAPDGSLRFPALRVDSVPSSVQNPPVLPFGFL CSCLVFPRNSHPHSISHCGLTNLLSSLRTGLAGSLGMSFIFLSVKLARCPLPFTLENKIS LCNMVKPHLYQQNKKTQKLARCGGASLYSQQLRGLRWENGLSLGGRGCSELRSHHCTLAR VTKPDFVSKNTGMNMSITLI

FIGURE 10-B

Ensembl - Q9HCN7 protein sequence ENSP00000334552

rs1671152 (G/T = K = H304N) 321 aa

MSPSPTALFCLGLCLGRVPAQSGPLPKPSLQALPSSLVPLEKPVTLRCQGPPGVDLYRLE KLSSSRYQDQAVLFIPAMKRSLAGRYRCSYQNGSLWSLPSDQLELVATGVFAKPSLSAQP GPAVSSGGDVTLQCQTRYGFDQFALYKEGDPAPYKNPERWYRASFPIITVTAAHSGTYRC YSFSSRDPYLWSAPSDPLELVVTEFSEATAELTVSFTNEVFTTETSRSITASPKESDSPA GPARQYYTKGNLVRICLGAVILIILAGFLAEDWHSRRKRLRHRGRAVQRPLPPLPPLPT RKSNGGQDGGRQDVHSRGLCS

FIGURE 10-C

NCBI - GP6 protein sequence NP_057447

339 aa

MSPSPTALFCLGLCLGRVPAQSGPLPKPSLQALPSSLVPLEKPVTLRCQGPPGVDLYRLEKLSSSRYQDQ AVLFIPAMKRSLAGRYRCSYQNGSLWSLPSDQLELVATGVFAKPSLSAQPGPAVSSGGDVTLQCQTRYGF DQFALYKEGDPAPYKNPERWYRASFPIITVTAAHSGTYRCYSFSSRDPYLWSAPSDPLELVVTGTSVTPS RLPTEPPSSVAEFSEATAELTVSFTNKVFTTETSRSITTSPKESDSPAGPARQYYTKGNLVRICLGAVIL IILAGFLAEDWHSRRKRLRHRGRAVQRPLPPLPPLPPTRKSHGGQDGGRQDVHSRGLCS

FIGURE 11-A

NP_002281 [gi:4504949] laminin, alpha 4 precursor

MALSSAWRSVLPLWLLWSAACSRAASGDDNAFPFDIEGSSAVGRODPPETSE PRVALGRLPPAAEKCNAGFFHTLSGECVPCDCNGNSNECLDGSGYCVHCQRN TTGEHCEKCLDGYIGDSIRGAPQFCQPCPCPLPHLANFAESCYRKNGAVRCIC NENYAGPNCERCAPGYYGNPLLIGSTCKKCDCSGNSDPNLIFEDCDEVTGQC RNCLRNTTGFKCERCAPGYYGDARIAKNCAVCNCGGGPCDSVTGECLEEGFE PPTGCDKCVWDLTDDLRLAALSIEEGKSGVLSVSSGAAAHRHVNEINATIYLL KTKLSERENQYALRKIQINNAENTMKSLLSDVEELVEKENQASRKGQLVQKE SMDTINHASQLVEQAHDMRDKIQEINNKMLYYGEEHELSPKEISEKLVLAQK MLEEIRSROPFFTORELVDEEADEAYELLSOAESWORLHNETRTLFPVVLEOL DDYNAKLSDLQEALDQALNHVRDAEDMNRATAARQRDHEKQQERVREQM EVVNMSLSTSADSLTTPRLTLSELDDIIKNASGIYAEIDGAKSELOVKLSNLSN LSHDLVOEAIDHAODLOOEANELSRKLHSSDMNGLVOKALDASNVYENIVN YVSEANETAEFALNTTDRIYDAVSGIDTQIIYHKDESENLLNQARELQAKAES SSDEAVADTSRRVGGALARKSALKTRLSDAVKQLQAAERGDAQQRLGQSRL **ITEEANRTTMEVOOATAPMANNLTNWSONLOHFDSSAYNTAVNSARDAVRN** LTEVVPQLLDQLRTVEQKRPASNVSASIQRIRELIAQTRSVASKIQVSMMFDG QSAVEVHSRTSMDDLKAFTSLSLYMKPPVKRPELTETADQFILYLGSKNAKK EYMGLAIKNDNLVYVYNLGTKDVEIPLDSKPVSSWPAYFSIVKIERVGKHGK VFLTVPSLSSTAEEKFIKKGEFSGDDSLLDLDPEDTVFYVGGVPSNFKLPTSLN LPGFVGCLELATLNNDVISLYNFKHIYNMDPSTSVPCARDKLAFTQSRAASYF FDGSGYAVVRDITRRGKFGQVTRFDIEVRTPADNGLILLMVNGSMFFRLEMR NGYLHVFYDFGFSSGRVHLEDTLKKAOINDAKYHEISIIYHNDKKMILVVDRR HVKSMDNEKMKIPFTDIYIGGAPPEILOSRALRAHLPLDINFRGCMKGFOFOK KDFNLLEQTETLGVGYGCPEDSLISRRAYFNGQSFIASIQKISFFDGFEGGFNFR TLOPNGLLFYYASGSDVFSISLDNGTVIMDVKGIKVOSVDKOYNDGLSHFVIS SVSPTRYELIVDKSRVGSKNPTKGKIEOTOASEKKFYFGGSPISAOYANFTGCI SNAYFTRVDRDVEVEDFQRYTEKVHTSLYECPIESSPLFLLHKKGKNLSKPKA SQNKKGGKSKDAPSWDPVALKLPERNTPRNSHCHLSNSPRAIEHAYQYGGTA NSRQEFEHLKGDFGAKSQFSIRLRTRSSHGMIFYVSDQEENDFMTLFLAHGRL VYMFNVGHKKLKIRSQEKYNDGLWHDVIFIRERSSGRLVIDGLRVLEESLPPT EATWKIKGPIYLGGVAPGKAVKNVQINSIYSFSGCLSNLQLNGASITSASQTFS VTPCFEGPMETGTYFSTEGGYVVLDESFNIGLKFEIAFEVRPRSSSGTLVHGHS VNGEYLNVHMKNGQVIVKVNNGIRDFSTSVTPKQSLCDGRWHRITVIRDSNV VQLDVDSEVNHVVGPLNPKPIDHREPVFVGGVPESLLTPRLAPSKPFTGCIRHF VIDGHPVSFSKAALVSGAVSINSCPAA

FIGURE 11-B

LAMA4 Domains

Gene	Prediction Method	Accession ID	Domain Description	Start	End
LAMA4	Pfam	PF00053	Laminin_EGF	82	129
LAMA4	Pfam	PF00053	Laminin_EGF	132	184
LAMA4	Pfam	PF00053	Laminin_EGF	187	241
LAMA4	Pfam	PF06008	Laminin Coiled-coil I	297	555
LAMA4	Pfam	PF06009	Laminin Coiled-coil II	734	861
LAMA4	Pfam	PF00054	Laminin_G	1079	1213
LAMA4	Pfam	PF00054	Laminin_G	1499	1629
LAMA4	Pfam	PF00054	Laminin_G	1676	1804
LAMA4	prosite	PS00022	EGF_like	155	166
LAMA4	prosite	PS00225	Crystallin	1107	1122
LAMA4	prosite	PS01248	Laminin_EGF	98	132
LAMA4	prosite	PS01248	Laminin_EGF	155	189
LAMA4	prosite	PS01248	Laminin_EGF	209	243
LAMA4	pfscan	PS50027	Laminin_EGF	79	125
LAMA4	pfscan	PS50027	Laminin_EGF	129	181
LAMA4	pfscan	PS50027	Laminin_EGF	184	236

FIGURE 12

NP_0001810 [gi:4502807] chromogranin B precursor; Chromogranin B
(secretogranin B) [Homo sapiens]

MQPTLLLSLLGAVGLAAVNSMPVDNRNHNEGMVTRCIIEVLSNALSKSSAPPI TPECRQVLKTSRKDVKDKETTENENTKFEVRLLRDPADASEAHESSSRGEAG APGEEDIQGPTKADTEKWAEGGGHSRERADEPQWSLYPSDSQVSEEVKTRHS EKSQREDEEEEEGENYQKGERGEDSSEEKHLEEPGETQNAFLNERKQASAIKK EELVARSETHAAGHSQEKTHSREKSSQESGEEAGSQENHPQESKGQPRSQEES EEGEEDATSEVDKRRTRPRHHHGRSRPDRSSQGGSLPSEEKGHPQEESEESNV SMASLGEKRDHHSTHYRASEEEPEYGEEIKGYPGVQAPEDLEWERYRGRGSE EYRAPRPQSEESWDEEDKRNYPSLELDKMAHGYGEESEEERGLEPGKGRHHR GRGGEPRAYFMSDTREEKRFLGEGHHRVQENQMDKARRHPQGAWKELDRN YLNYGEEGAPGKWQQQGDLQDTKENREEARFQDKQYSSHHTAEKRKRLGE LFNPYYDPLQWKSSHFERRDNMNDNFLEGEEENELTLNEKNFFPEYNYDWW EKKPFSEDVNWGYEKRNLARVPKLDLKRQYDRVAQLDQLLHYRKKSAEFPD FYDSEEPVSTHQEAENEKDRADQTVLTEDEKKELENLAAMDLELQKIAEKFS QRG

FIGURE 13

XP_294692 [gi:29746498] hypothetical protein XP_294692 [Homo sapiens]

 $\label{lem:mppafaiiclggwkllkrlkekslfllqliwsyvmcspsevsrklcavfypgn \\ ntpapwprciishsssllsmapevkssempklpdgniftawrkphrsyltclg \\ w$

FIGURE 14

GP6

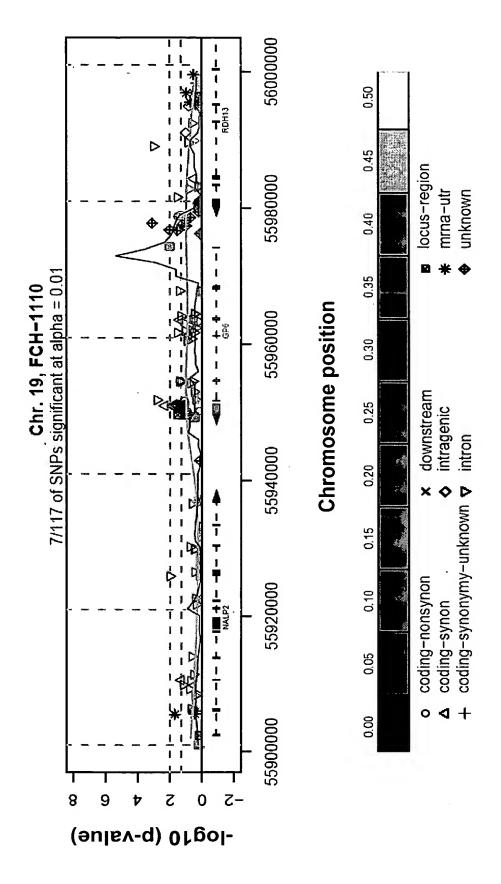


FIGURE 15

LAMA4

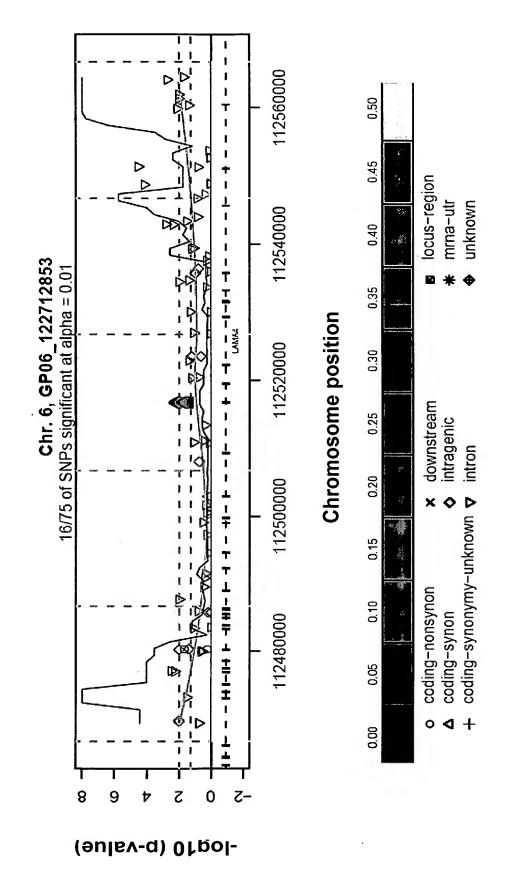


FIGURE 16

C20orf154 & CHGB Region

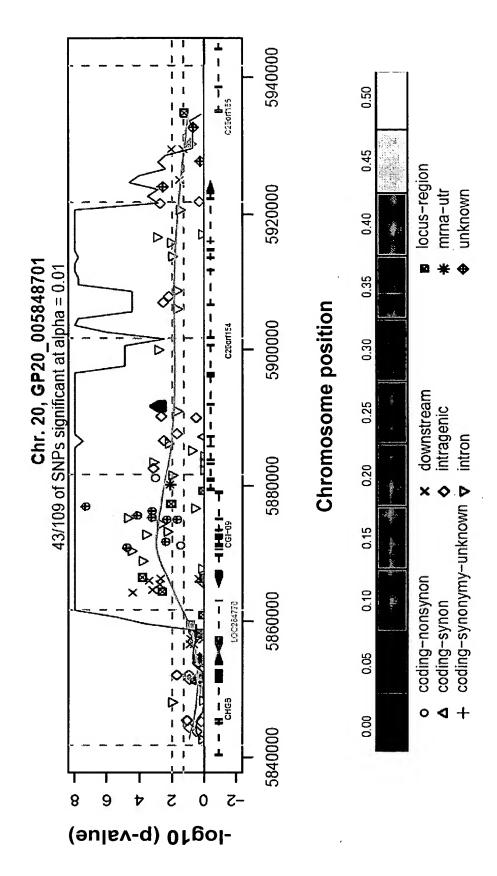
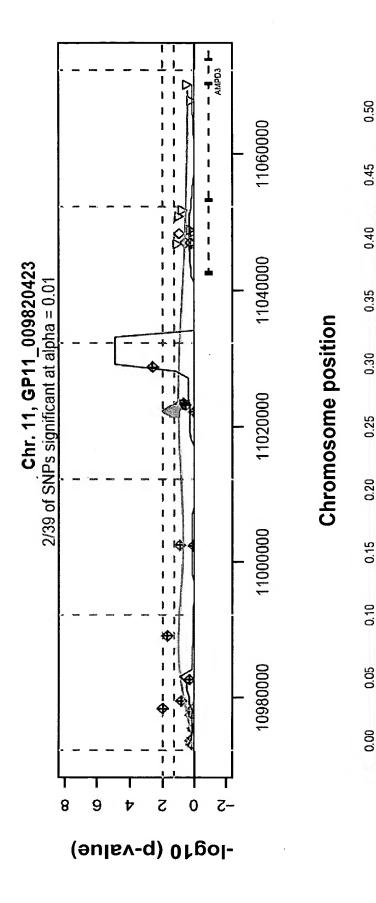


FIGURE 17

LOC338749



locus-region mrna-utr unknown

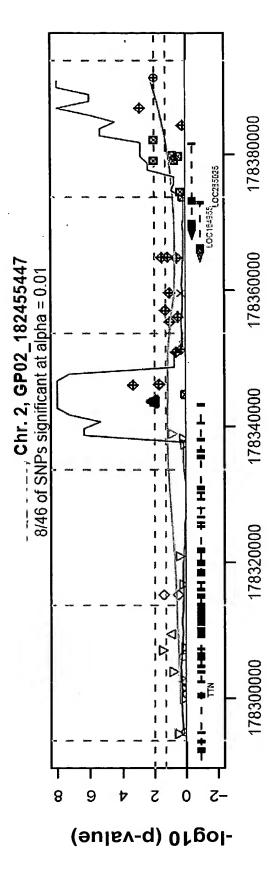
downstream intragenic

coding-nonsynon x downs coding-synon on intrage coding-synonymy-unknown ▼ intron

coding-nonsynon

FIGURE 18

NL



Chromosome position

